

# UNITED STATES AIR FORCE RESEARCH LABORATORY

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## Communications Assessment Pilot

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FOR THE COMMANDER

*For*  Lt Col

JAY KIDNEY, Col, USAF, Chief  
Deployment and Sustainment Division  
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## **PREFACE**

This report documents the results of a comprehensive study to create a concurrent communication feedback mechanism as part of a logistics research and development program titled Communications Assessment Pilot (CAP), (Contract Number F41624-97-D-5002) managed by the Air Force Research Laboratory, Logistics Sustainment Branch (AFRL/HESS), at Wright-Patterson AFB, OH. The primary goal of the project was to develop and pilot a manual mechanism for change agents to monitor the effectiveness of communications across all levels and functions in an organization on an ongoing basis. The pilot determined the feasibility of developing an automated system that will allow managers to determine the effectiveness of selected communication efforts. This monitoring allows for near real-time corrections in communication choices when effectiveness is being compromised. The intent is that this mechanism will become a permanent management tool for change agents and managers at the participating organizations.

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## 1.0 PROJECT OVERVIEW

This report describes the tasks performed in the pilot development of a concurrent communication feedback mechanism. Change efforts currently underway at two Department of Defense (DoD) organizations: Warner-Robins Air Logistics Center (WR-ALC) and the Defense Reutilization and Marketing Service (DRMS) provided the research context. This project, referred to as the Communication Assessment Pilot (CAP), complements the Readiness Assessment and Planning Tool Research (**RAPTR**) project, sponsored by the Air Force Research Laboratory (AFRL/HESS). CAP took advantage of change agents within both organizations to assist in definition, testing, and deployment.

This project developed and piloted a manual mechanism for change agents to monitor the effectiveness of communications across all levels and functions at the participating organizations on an ongoing basis. The pilot determined the feasibility of developing an automated system that will allow managers to determine the effectiveness of selected communication efforts. This monitoring allows for near real-time corrections in communication choices when effectiveness is being compromised. The intent is that this mechanism will become a permanent management tool for change agents and managers at the participating organizations. Developing and deploying a more automated version of this tool is a follow-on project.

Individual communication efforts, referred to within this document as *communication events*, can include briefings, memos, reports, or any other discrete communication that has a *defined purpose* and a *defined audience*. For each event monitored, the initiator of that communication was asked a series of questions about the goals for the communication, the timing of the communication, and the intended audience. The goal was to reduce the questions asked about a communication event to a standard *communicator input* form. The answers to these questions were to be used to create a custom *feedback form* for that event.

This defined audience comes from a variety of levels, within management and line, military and civilian. These individuals are referred to in the text below as *receivers*. The idea within CAP was to identify the intended audience within the organizational unit for the pilot and then categorize them in some way that is meaningful to the management of that organization. Then, for selected communication events, individuals from these categories were sampled to get feedback on that event. This reflects the fact that different categories of employees can hear and understand things differently. This sampling sought to highlight these differences. The sample was asked to complete the feedback form for that event. The data was collected and analyzed, with feedback compared to the intent of the person that initiated the communication.

In the pilot, the communication goals were used to manually create a feedback form. People were sampled, data gathered, and the questionnaire data coded by hand. The idea during the pilot is to create a procedure that could, in a subsequent effort, be automated in a computer program.

Conducting the pilot at two different organizations provided several benefits. By phasing the technical activities, learning from one site can immediately be applied that learning to work at the other site. This also resulted in some economies of scale in the research effort by developing many project procedures generally enough to be applied at both sites. However, there were enough differences between the sites that many products could not be directly applied at both sites. For example, the initial data collection at each site required data collection instruments. These instruments had some common elements but, due to the differences in the sites, they also contained site-specific items. It was anticipated that the feedback collection mechanisms would be substantially similar but their means of use would most likely be different. Finally, the specification for the software system could also have some site-specific differences. Overall, however, having two pilot sites resulted in a more robust result that can be more easily applied at other DoD organizations.

The project team for this pilot consisted of staff from the Environmental Research Institute of Michigan (ERIM) and an independent consultant who specializes in communications research and practices.

## 2.0 REFERENCED DOCUMENTS

- Battle Creek Federal Center Telephone Directory, June 1997.
- Davis, K. (1953a) "Management communication and the grapevine", *Harvard Business Review*, 31(5): 43-49.
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- Glaser, Susan R. et al (1987) "Measuring and Interpreting Organizational Culture", *Management Communications Quarterly* 1(2), p. 173-198.
- Goldhaber, Gerald M. et al. (1984) Information Strategies: New Pathways to Management Productivity, Revised Edition. Norwood NJ: Ablex Publishing Corporation.
- Roberts, Karlene H. and Charles A. O'Reilly III. (1974) "Measuring Organizational Communication," *Journal of Applied Psychology*, 59(3), p. 321-326.
- Rubin, R. B., P. Palmgreen, and H. Sypher, Eds. (1994) Communication Research Measures: A Sourcebook. New York, NY: The Guilford Press.

## 3.0 OBJECTIVE

The objective of the CAP Project was to define, develop, and test a mechanism to provide near real-time feedback on the effectiveness of communication within an organization. This mechanism lays the foundation for future development of a software tool that could semi-automatically collect the communications feedback data. The testing was conducted within one WR-ALC PD/function and a selected unit of DRMS. The CAP Project was motivated by two key issues:

- Considerable evidence exists that communication effectiveness is currently less than optimal at the participating organizations. At WR-ALC, for example, this is potentially contributing to individual and group resistance to reengineering and Lean Logistics driven changes.
- How do the change agents, from the commander through the management levels, ensure that their messages are being received and understood by their intended audiences? What metrics need to be developed to make this assessment?

## 4.0 APPROACH

Specific tasks and deliverables associated with this project are identified in the following paragraphs.

### 4.1 Communications Assessment

#### 4.1.1 Select Organizational Units

At WR-ALC, it took some discussion to select the appropriate unit. The original request for "communication assistance" came from the F-15 Weapon System Support Center (WSSC), a new organizational unit created to implement the Aircraft Repair Enhancement Program (AREP). Consequently, they were chosen as both the organizational and change focus. While the original SOW indicated a focus on one unit within each target organization, the project team agreed to include both the F-15 WSSC and the C-141 WSSC at WR-ALC. Each WSSC has less than 100 people

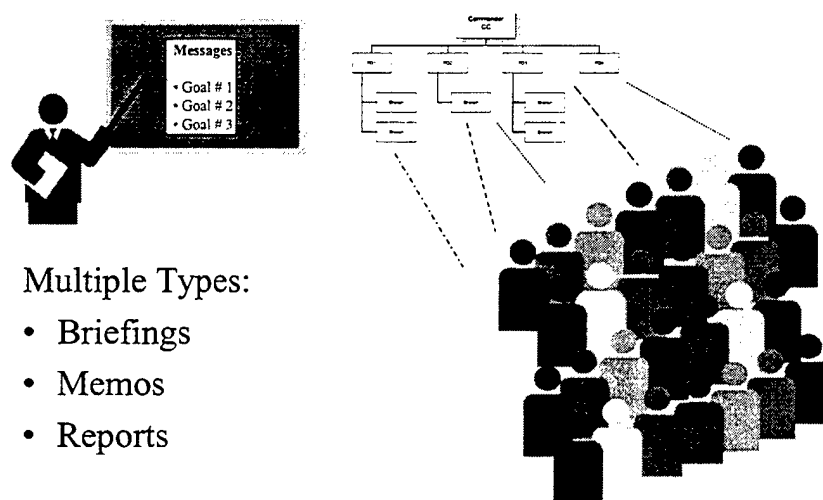
The kickoff meeting at DRMS was conducted on 4/29/98. At this session it was decided that the effort at DRMS would focus on their Marketplace unit, a new part of their organization created in response to their Enterprise Management initiative. Enterprise Management is a systematic approach to making public/private trade-offs in public organizations. It can include elements of A-76 for specific decisions.

There are approximately 120 Marketplace staff at HQ DRMS and approximately 500 people in the field. Field staff work at Defense Reutilization and Marketing Offices (DRMOs) that are usually collocated with DoD installations.

These DRMOs accept material for reutilization/transfer/donation (R/T/D). These operations perform several very different functions, including retailing, performing recycling actions, and demolishing certain items.

#### 4.1.2 Meet with Unit Management

The premise of CAP is that management communicates across all levels of the organization using multiple mechanisms, as illustrated in Figure 1. As part of our investigation, the project team had to identify the types of mechanisms and their respective audiences.



#### Multiple Types:

- Briefings
- Memos
- Reports

Figure 1 - Management communication mechanisms

Subject to their availability, the project team scheduled meetings with the management of the selected organizational units to discuss the project concept and to gather more in-depth information. Information to be gathered included:

- What receivers, i.e., employees of different classes within the target organizational units, should currently know about specific change efforts through interviews of communicators and content analysis of recent communication events.
- The anticipated frequency and nature of communication events and how often monitoring events may be required
- The desired sampling characteristics, i.e., what criteria would managers of the organizational units like to use to select respondents and view summary statistics about their communication effectiveness.

This project could not be successful without the participation of organizational unit personnel. These "change agents" were identified with the participation of RE at WR-ALC and DRMS management at DRMS. Change agents are personnel that are currently involved in change efforts who may be willing to provide guidance during development and assistance during deployment. At WR-ALC, the C-141 WSSC Chief (WR-ALC/LFPW) was a constant supporter of our efforts, providing time and inputs in the face of an increasing workload. At DRMS, there were several points of contact (POCs) during the different phases of the project. For the most part, their efforts moved the project forward. However, changing POCs five times did cause the project team to expend time and effort to bring these new collaborators up to speed.

Before the site visits, the project team developed a detailed set of objectives for the site visits, included here as Appendix B. Working from this blueprint helped keep the visits on track and provided a checklist that ensured the project team obtained the desired information.

At WR-ALC, the team met with the WSSC chief for each organization. Previous experience with AREP and these particular people simplified this step at WR. The team already had a significant amount of archival information that was supplemented during the visit. After the kickoff briefing at DRMS, the team spent some time with senior HQ DRMS staff, discussing issues and deciding on the appropriate organization for this project.

An important lesson for projects of this type is that people undergoing change tend to be very. It is difficult to get active participation and timely responses to information requests. To the greatest extent possible, plan your interactions and data collection so that those assisting you can do everything you need as part of your structured meeting.

#### 4.1.3 Develop Instruments for Each Organizational Unit

The project team conducted a literature review to identify specific instruments for specific issues (see Appendix C). The final survey was constructed around two existing surveys:

- A 36-item organizational culture instrument developed by Glaser et al (1987).
- A 23-item organizational communication instrument developed by Roberts and O'Reilly (1974).

Some minor modifications were made to the Roberts and O'Reilly instrument. For example, relevant response options were added for some questions. Since trust is an important issue at both organizations, several items were added about trustworthiness and believability of information. Some demographics were also included:

- Location
- Grade
- Union/non-union
- Years in present location (WR-ALC/DRMS)
- Years in present position

Both DRMS and the WR-ALC WSSCs are evolving to information-based organizations that will require most employees to be computer-literate. At the WSSCs, most staff members have their own computer and Internet electronic mail address. At DRMS, becoming an information-based organization is one of the tenets of their change efforts. Members of the project team visited two DRMOs as part of this effort, conducting unstructured interviews with DRMO management. Different DRMOs have taken different approaches to email deployment. At some locations, most people that need to use a computer have one that has access to the outside world. At others, just the Chief has an external email address, with some locations having local area networks (LANs) for internal distribution. Access is just one issue. Training and support are equally problematic. During an organization-wide training course, DRMS employees were informed that computer literacy was a goal for all employees. Some needed to be brought up to speed on basic applications, while others required training on new business systems. For these reasons, the project team decided to include a section in each survey on computing issues. Questions areas included:

- Do you have a computer?
- Self-assessment of skill level - Expert, Intermediate, Average, Below Average
- Percentage of work-time using the computer
- Is your computer connected to the Internet?
- For DRMO chiefs and WSSC chiefs, the team wanted to understand the deployment of computing technology, i.e., how many people do you have, how many computers (assigned to one person or shared) are deployed, and how many of them have access to the Internet and email.

# of People	Computers		Email	Internet
	Personal	Shared Access		

- Training - amount, perceived adequacy
- Applications

- Legacy systems (and their replacements)
- Internet
- Support for used systems - amount, perceived adequacy

Earlier questionnaire sections provided information about the people and the environment in which they work. The final part of the communication baselining instrument was for facts testing. To baseline someone's knowledge about an organization or change effort, you need to come up with a set of relevant facts about the organization and the change to test. Much of this information was initially derived from archival information. For DRMS, archival materials included:

- Issues of the "EM" News, a publication of the DRMS Communications Team for Enterprise Management. 34 issues published between 23 September 1996 and July 28 1998
- 4 issues of "DRMS World", a DRMS newsletter, published in 1997 and 1998.
- Employee manuals.
- DRMS State of the Command briefing dated 10/1/97.
- DRMS Business Education booklet, "The Challenge: The Choice to Change", dated 1997.
- DRMS WWW sites, both public and their Intranet

For WR-ALC, information reviewed included:

- Briefings
  - AREP AFMC Command and Team Conference
  - AREP Importers Meeting
  - AREP Progress Report to the WR-ALC commander
  - AREP/DREP Buying Support
  - The Day of the Fixer is Dawning...Ready or Not
- AREP documentation
  - "Re-engineering a Defense Depot to Implement Lean and Synchronous Logistics Workflows"
  - The WSSC manual and supporting documentation
    - Weapon System Support Center (WSSC) for the Aircraft Repair Enhancement Program
    - AREP Manual - AREP Process Description

The result was two "facts databases", Excel spreadsheets with the following columns:

- **Fact** - a listing of the potential facts; often quotes were taken from the original source
- **Source** - archival document where the fact was located
- **Who** - the document reviewer.
- **Comment** - any comment about the facts, e.g., if there was more detail in the source, related facts, who should know a fact, etc.

DRMS and WR-ALC staff members reviewed the fact lists and provide a prioritized list of approximately 15-20 facts. Of course, to test knowledge you can not just ask questions that are all true. Some plausible "non-facts" should be included as options. Therefore, when they reviewed the "truths", they were asked to also provide as many misconceptions about their organization and the change effort as they could. Using this process, the final section of the data collection instrument included multiple choice and true/false questions. The baselining questionnaires are included in Appendix D and E.

Building the fact-based section proceeded smoothly at WR-ALC. One reason for this was the team's understanding of AREP and the WSSC. At DRMS, it took many more meetings, emails, and telephone calls to make this happen.

#### 4.1.4 Pilot Instruments

At WR-ALC, the questionnaire was administered to the WSSC chiefs. At DRMS, the survey was tested with two former DRMO chiefs who had recently been assigned to HQ. Other HQ staff reviewed the instrument through two review cycles.

#### 4.1.5 Collect Data for Each Organizational Unit

At WR-ALC, all F-15 and C-141 WSSC staff was requested to participate in the baselining survey.

At DRMS, it was decided to focus on DRMOs in the Continental United States (CONUS). The DRMS "chain of command" goes from HQ DRMS to Zone Managers, staff members that are responsible for groups of DRMOs in a region. A DRMO Chief manages these DRMOs or "stores". Depending on the size of the organization, there could be up to 4 or 5 first line supervisors.

There are several communication issues worthy of study. There could be regional effects based on Zone Manager communication practices. Organization size also affects communication. To investigate these issues, the project team decided to survey 34 DRMOs in the East and West regions. The team worked with HQ DRMS to select 17 DRMOs from each region that were "small", "medium", and "large". Since the focus was on the Marketplace unit, the sample included staff members who regularly communicated with this unit. At HQ, this included all Marketplace staff. In the field, the DRMO Chiefs, the sales writers, and environmental protection people were included.

HQ DRMS staff identified the small, medium, and large DRMOs in the East and West regions. The project team put together a mailing list from the DRMS phone book (dated June 1997) for review and editing by the Marketplace staff. They also provided numbers on how many staff of each position type worked at each DRMO. To build awareness of our plans, the survey effort was promoted at the weekly Zone Managers teleconference.

The team used this respondent information to send a packet to each DRMO. The Chief and each staff member (positions types 1104, 1107, 028, and 029 only) received:

- A cover letter describing the survey effort.
- A blank copy of the communication baselining survey coded only by location (DRMOs 1-34, HQ 35).
- A self-addressed stamped envelope.

The survey administration instructions to the field led to some confusion about whether DRMO Chiefs should participate in the survey. As part of the callbacks conducted by the team, the telephone respondent was told about surveys processed to date from their location. (Some of the early data analysis showed some other issues necessitating calls to the DRMOs.) If they had not already responded to the survey, they were asked the objective questions about their computing environment (numbers 107 through 111). As a result of these calls, incorrect DRMO Chief contact information on the original spreadsheet was corrected.

All surveys were returned directly to the project team.

There were several survey administration lessons learned. Individual response envelopes seemed to work well. Several questions asked respondents to apportion a whole amount (communication, effort, etc.) among several options that were to total 100%. It was clear from the data collected that respondents sometimes do not assure their totals sum to 100. Finally, survey instructions about conditional sections, i.e., only some respondents need to reply, needed to be clearer and more emphatically displayed.

#### 4.1.6 Analyze Data for Each Organizational Unit

The surveys were categorized by site code and marked with a unique survey ID number. The analysis was conducted using Microsoft Office tools.

Since one goal of the project was to define how these surveys could be conducted automatically, the project team used the analysis and reporting task as an opportunity to try out different techniques. For the WR-ALC data, the site reports (F-15, and C-141) were created by linking analyses from an Excel spreadsheet to a blank survey in Microsoft Word. A blank survey was annotated with the summary statistics from the data analysis. This annotated survey became part of the reporting to WR-ALC. While this was effective, it used significant computing overhead that taxed a 150 MHz PC to frequent failure. The project team also wrote a report that described the survey process and results more fully. Our reports are included as Appendix D and E.

For DRMS, the team created a large Excel workbook with sheets for data, each analysis, and a results summary. Pasting the raw data into the analysis sheets produced all of the necessary summary statistics. These graphs and data were exported to Word to produce the report.

The team delivered the results to both organizations. Team members visited WR-ALC and met with both WSSC Chiefs. (At this meeting, the F-15 WSSC decided that they did not have the staff resources to continue supporting the project. It was agreed that the project would push on with C-141 and keep the F-15 WSSC management updated on the results.) At DRMS, DRMS management was briefed on 12/15/98 at HQ DRMS in Battle Creek, MI. To get the DRMS results out to the field, the project team worked with the HQ Public Affairs staff to:

- Write an article about the survey results for the Enterprise Management newsletter that is distributed to the entire organization.
- Publish WWW versions of the survey, results report, and the spreadsheet of the summary statistics on the DRMS Intranet.

## 4.2 Planning and Development

### 4.2.1 Review Available Assessment Instruments

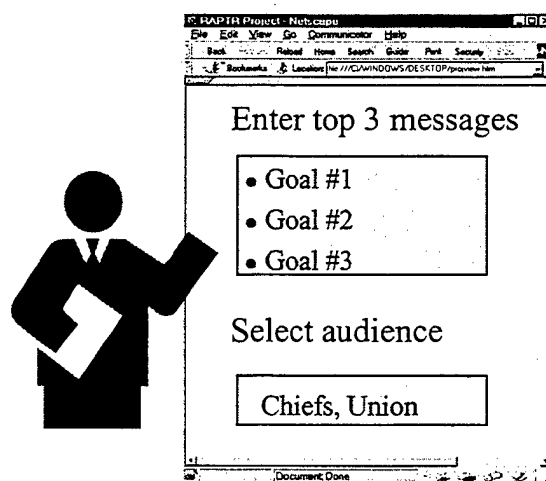
The instrument described in Davis (1953a, b) was our starting point. The project team also reviewed other possibilities, such as those described in Rubin et al (1994). The results of the literature review are included in Appendix C. After this review, the team determined that the ECCO instrument described by Davis was the best alternative for this pilot test.

### 4.2.2 Select Change Agents

At DRMS, the project team started with the Executive Vice President of the Marketplace unit, who appointed one of his staff as our functional point of contact (POC). At WR-ALC, the team worked directly with the WSSC Chiefs.

### 4.2.3 Develop Communicator Form

The questions and format of the communicator form were dictated by the structure of the feedback form. Simplicity was the goal.



CHAPTER Project - Netscape

http://www.localhost/Project/Feedback.htm

Enter top 3 messages

- Goal #1
- Goal #2
- Goal #3

Select audience

Chiefs, Union

Document Done

Figure 2 - Simple communicator form to be built around feedback form

This was one area that was difficult to implement. Since effective communication was the issue, trying to use a closed-ended form to collect communication goals and audiences was problematic. As it turned out, there was a significant amount of review and revision of the goals for each survey. Follow-on research efforts should develop some training on this process, based on realistic examples taken from the participating organization. In a true empirical effort, researchers would be concerned about affecting the outcome of the “experiment” by changing the subject’s behavior before measurement. Here, the goal was to improve communication effectiveness. Effort a priori and measurement ex ante are both fair game as long as the result is achieved.

#### 4.2.4 Develop Feedback Form

Computer literacy issues at WR-ALC forced the team to use paper-based surveys. On the other hand, the geographic dispersion of DRMS practically forced the team to use the WWW for their surveys. A password-protected site was created on ERIMs secure server for the project. An HTML form was created that posted the survey data to a Microsoft Access database.

DRMS Effectiveness Survey 2 - Netscape

File Edit View Go Communicate Help

**CAP Survey Form**

Code Number ERIMTEST

1. Before receiving this questionnaire, did you know any of the information in the box below?  
Please check each of the items you know.

- ☐ R1 AEDA inert certifications now require two signatures from either qualified DoD or contractor personnel
- ☐ R2 A standard memorandum of understanding is now available for DRMO use with all of their AEDA generators.
- ☐ R3 When turned in to the DRMO, containers placed on or banded to pallets must allow for visual inspection of all containers.
- ☐ R4 AEDA Range Residue that may be dangerous to public health and safety must be rendered safe and the area normally containing the hazardous material must be opened for visual inspection.
- ☐ R5 Before removal of AEDA material, qualified individuals will brief the purchaser and DRMO personnel on the responses/actions necessary in the event that live or suspected live AEDA is discovered.

2. If you had the information in the box but you heard it differently, please write the facts you heard below. Use the reference numbers R1 - R5 from above.

If you checked above that you knew any of the information, please complete the questionnaire by providing the information requested below.

If you did not check any of the items (you did not know any of the information in the box), you have completed the questionnaire. Please submit the questionnaire using this button:

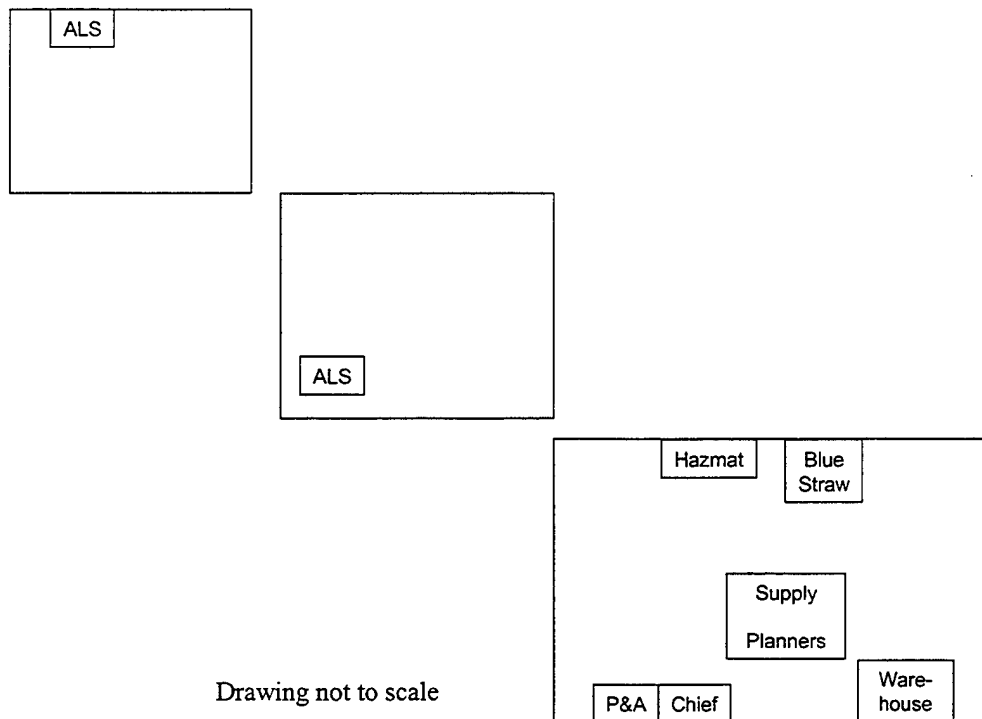
Document Data

Figure 3 - Using a Web-based effectiveness form was essential at DRMS

#### 4.2.5 Define Sampling Strategies

Given the size and population density of the WSSCs, the team could readily survey all WSSC staff. The WSSC organization is flat, limiting the importance of hierarchy. However, geography is an issue. Figure 4 illustrates how dispersed the WSSC staff is on the base. The distance from the lower right corner to the upper right corner of the diagram is over 0.5 mile. This distinction was considered in the data analysis.





**Figure 4 - Geography an issue for C-141 WSSC**

The project team knew from the DRMS baselining results that zone and DRMO size were relevant. Ideally, our survey could reach down within each DRMO to specific staff members at different levels of the hierarchy. The team approached DRMS with this request. It turned out, however, that HQ does not have that level of information. While they have a “Chiefs” mailing alias, it is not up to date. In addition, for some DRMOs the list contained up to eight DRMO staff. It took over two weeks to get an up-to-date list of all of the DRMO Chiefs. (In a meeting where the team developed one of the effectiveness surveys, an HQ manager wished he had the email addresses of the DRMO staff directly affected by his efforts.) Timely access to accurate respondent information is essential to making a system like this work. Just a few failures will poison the respondent population for all future data collection efforts.

#### **4.2.6 Define Analysis/Feedback Methods**

After some discussion in our meetings, the project team decided to try a variety of graphical and numerical methods to communicate our results back to management.

#### **4.2.7 Refine Forms and Methods**

The change agents served as a mechanism for reviewing the forms and methods as the project moved forward. Concurrent with these revisions, the team worked with the change agents to plan for pilot deployment. This project could not have been completed without the active support of our contacts at each organization.

### **4.3 Pilot Test**

While the team could readily identify these events with our research sites, the transmission of these messages occurred according to the schedules of the staff at those sites. As such, the project schedule was at the mercy of their timing. For example, while DRMS events were identified in December, those events would not occur until March. (In fact, all of the events identified in December did not occur, causing some scrambling to find new candidates.) In fairness to our hosts, in most cases the transmission of these messages was subject to bureaucratic processes outside of their control. It is brought up here only because it is important when conducting work like this to plan for such

delays. Perhaps if an effort like this was internal to a single organization, more control and, thus, scheduling effectiveness could be achieved.

#### 4.3.1 Test with 3 Events

The plan was to test the feedback mechanism with at least three (3) communication events. The project team developed two versions of the feedback form for use in this test:

- A paper version that was substantially similar to the original form from Davis (1953). The team made some minor modifications. Since the baselining survey results showed that trust in the host organizations was low, two questions were added about the believability of the messages. The team also added some response options to reflect changes in technology since 1953, i.e., email, FAX, the Internet, and the World Wide Web.
- A WWW version based on the same instrument. Several alternative versions were developed based on different ways of representing the selection options using Web form functionality. One version looked the same as the paper version. Another used pull-down menus for each multiple choice question. After some internal testing, it was agreed that while the pull down menus made the form shorter, they also made it more difficult to see and compare the choice options for some questions. (This problem could be exacerbated for respondents with small monitors.) Based on fieldwork data, the team also knew that many people like to print things such as this for review. When printed, the pull-down menu version did not list any of the menu choices, making the printout worthless. For these reasons, the team chose the version that mimicked the paper version.

##### 4.3.1.1 Testing at WR-ALC

The C-141 WSSC did have the hierarchy that was originally envisioned for the effectiveness testing. Based on the results of previous research, you would expect that there would be some attenuation of messages when they have to traverse multiple levels of organizational hierarchy. The C-141 WSSC was relatively flat. However, it was geographically dispersed across at least one square mile of WR-ALC. Most of the WSSC staff was housed in a single building. The Schedulers (ALS in Figure 4) sit with their respective airplanes in the hangars where the repair work is conducted.

**First Test at WR-ALC.** The communication event consisted of a series of meetings held with all WSSC staff members. The essential facts were:

- The Site Assistance Visit showed that the implementation of the AREP process still has a long way to go.
- The main green area identified during the Site Assistance Visit was "AREP Process Implementation".
- The main red area identified during the Site Assistance Visit was "Conducting Material Forward Looks".
- The upcoming Operational Readiness Inspection (ORI) is an important event for WR-ALC.

The WSSC Chief followed up the meetings with an email to all staff members.

The effectiveness data was collected five to seven days after the meetings. In developing the effectiveness instrument, the WSSC chief also added two items that were incorrect:

- The areas identified as "low" during the Communications Survey have all been resolved. (Work on these issues was on going. Actually, these meetings were held to help address the "low" areas.)
- The ORI will be 1-5 February. (The actual dates were 1-5 March.)

The project team collected effectiveness data by walking through the work areas and asking WSSC staff to complete the survey. The same interviewer gathered all of the data. Respondents generally took one to five minutes to complete the survey.

After the test, the survey was revised in minor ways:

- The instructions were changed to highlight the "first" hearing of the message to try to ensure that respondents would consider the original source of the message.
- Instructions were added to questions with "fine-grained" response options, i.e., questions 4 and 8, to try to get respondents to review all of the options before selecting just one. For example, in the first test at WR-ALC, the message was passed in a meeting. Technically, meetings could be considered face-to-face communication or talking in a small group. This was in addition to the correct answer, attending an organized meeting. Hopefully,

if the respondents review all of the response options before selecting they can determine the most appropriate answer.

A problem arose in the data analysis with respondents saying they heard a falsehood in question one and then correcting it in question two. This made it difficult to score each questionnaire because there were several ways to get the "right" answer, i.e., in this test there were four correct statements and two falsehoods. A respondent could be accurate and answer in four different ways:

- Say they heard all of the statements and then correct the two errors.
- Say they heard the four truths and the first falsehood, and then correct that falsehood.
- Say they heard the four truths and the second falsehood, and then correct that falsehood.
- Say they heard just the four truths.

Recall that the goal was for the survey to be administered and scored with no manual intervention. Therefore, the administration practices and instructions have to be changed to avoid this situation. This can also be addressed with instructions to the manager regarding which falsehoods they introduce. In this case, the falsehood sentences contained true subjects ("areas identified as low" and "ORI") but specific facts about those subjects were false, either status ("all resolved") or the date ("1-5 February"). If the process does continue to allow for falsehoods, they should be more along the lines of the "popular misconceptions" that are completely false.

Since geography was an issue, the team analyzed the data by location, i.e., those in Building 125 (the main building in Figure 4) and those not in that building. To draw ready comparisons, the team wanted the report to allow the readers to see the results by location side-by-side. It was decided to prepare the report in Microsoft PowerPoint so that when printed in handout form, six slides to a page, the results from each location appeared side-by-side. This report is included in Appendix G.

**Second Test at WR-ALC.** The second test at WR-ALC focused on changes to a logistics support contract called the Industrial Prime Vendor (IPV). This contract has been in the works for some time. This communication updated staff members on the program status. The questionnaire included five "facts" about facets of the IPV implementation.

The information was conveyed in a series of meetings held in Building 125 at WR-ALC (one small group in an outlying hangar was briefed in their work area). Unfortunately, the briefings were delayed until the day the researcher arrived to collect data. Consequently, our researcher collected effectiveness data right after each briefing. Many staff members (about one third of all respondents) showed their disapproval of this technique by saying they had not heard any of the factual information included in the briefing just minutes before.

**Third Test at WR-ALC.** The third test at WR-ALC was conducted simultaneously with the second. The IPV briefing also contained new information about the Forward Support Areas (FSAs), new work areas being constructed in the WR hangars. Again, the effectiveness data was collected right after the briefing. For this survey, about one third of the respondents (20 out of 63) chose to ignore the survey questions.

All WR testing information is included in Appendix G.

#### **4.3.1.2 Testing at DRMS**

The team met with the DRMS contacts in December and identified four possible communication events:

1. HQ staff visited every DRMO to discuss an upcoming "Commercial Venture", one of the Enterprise Management-related changes. These meetings had already occurred. Since it would take some time to initiate the data collection, it was decided to drop this opportunity
2. A communication was planned about needing additional data from some DRMS staff to support Activity Based Costing (ABC). The information would pass from the Zone Managers to the DRMOs about how their workload would be measured against hours in ABC.

3. DRMS was working with the National Technical Information Service (NTIS) on the distribution of DRMS catalogs. This was to be an email with an attached spreadsheet. It would describe staff responsibilities and what actions might be required.
4. A new reimbursement policy on scrap was being developed (Program Budget Decision 412). It would most likely be an email with a hard copy letter to the DRMO Chief.

These events were all to occur by the end of February. Unfortunately, the events selected all required action by outside organizations. Effectively this meant that they were all out of the control of the DRMS contacts. It also did not help that the DRMS point of contact changed three times between December and the first test. On the fourth POC, the team decided to identify new events.

Working with the DRMS contact, the team identified two possible events and worked to construct the respondent database. The events were policy changes that were communicated from HQ to the Zone Managers and on to DRMO Chiefs. The Chiefs then passed on the information to their first line supervisors who, in turn, communicated with some of their staff. During baselining, the team determined that almost all of these people have individual email addresses and access to the WWW. Ideally, the team wanted to track the progress of these messages through this network. Unfortunately, this level of respondent information was not available.

As a fall back position, it was decided to reach the DRMO staff through their Chiefs. First, the DRMO Chiefs were listed for each Zone Manager. The DRMO Chiefs were then used to solicit responses from their first lines and other staff. To help increase the response rate from the chiefs and to increase their compliance with our request, the request was sent out as an email from the DRMS Commander. Even this level of information was difficult to obtain.

All of the DRMS surveys and results are included in Appendix E.

**First Test at DRMS.** In early April, a change in the Bidder registration process was communicated from DRMS HQ to the Zone Manager and DRMO Chiefs. Since this policy affected bidding, Distribution Branch Chiefs, Sales Contracting Officers, Cashiers, and Marketing Technicians would need to know about the change. The original message requested that all affected parties review the details of the change available on the DRMS Internal World Wide Web site. (While the team was told this was a "change", it was more of a clarification of desired best practice.)

Respondents for this survey were solicited using emails sent to the Zone Managers and DRMO Chiefs. The Zone Managers were provided a URL to a password-protected WWW site. They were provided a user name, password, and code number to identify them by Zone. Chief were sent a similar email, requesting that they respond and to forward a similar request to the appropriate staff members. This indirect contact was necessary since HQ could not provide direct email contact with the specific staff categories. For this same reason, the team can only estimate the possible number of respondents. Based on 12 Zone Managers and 83 DRMOs, it was estimated that there could be approximately 400 respondents.

114 responses were received, a 29% response rate. This is reasonable for a survey of this type. Response rates by zone vary widely, as shown in Figure 5. (The 12 Zones were arbitrarily numbered from 1 to 12.)

Respondents did not score well on their knowledge of this "new" process. New is in quotes because during survey construction it was portrayed to the project team as such. As the open-ended responses made clear, this process was not new, making the questions confusing. Further discussion with DRMS staff revealed that this communication was intended to clarify best practice to the field.

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	Zone 12
Rate	46	36	18	24	14	10	32	7	36	29	50	35

**Figure 5 - Response rates by Zone for DRMS Survey 1**

While there may have been some confusion as to whether this indeed was a new process or not, many respondents were not clear about what the desired best practice is for bidder registration. The document issued from Headquarters contained some general information about what should be done. However, the desired behaviors required some advanced skills, such as complex Boolean searching to find any duplicate names in the databases and the simultaneous use of two different applications programs, DNSP and CORALS. The results of the communications baselining survey conducted as part of this study illustrated that field staff have had little formal training on many of the computer-based tools they must use everyday. It was recommended to DRMS that future process clarifications that require the mastery of advanced computing skills be accompanied by more detailed process descriptions, including relevant examples using graphics and screen captures from the required applications programs.

**Second Test at DRMS.** In early April, the publication of revised guidance for the processing of Ammunition, Explosives, and Other Dangerous Articles (AEDA) and Range Residue communicated from DRMS HQ to the DRMS Vice Presidents, Zone Managers, and DRMO Chiefs. This policy change should have been communicated down the following hierarchy:

The DRMO Chief to:

- The Property Management Branch to the DEMIL Coordinator;
- The Distribution Branch Chief to the Marketing Specialist(s); and
- The Environmental Branch Chief

The original email message requested that all affected parties review the details of the change available on both the DEMIL page of the DRMS Internal World Wide Web site and on the DoD Demilitarization and Trade Security Controls Web site.

91 responses were received, an 18% response rate. This was still reasonable for a survey of this type, but was much lower than for our first survey. There are several possible explanations for this difference. The first survey was sent out from the DRMS Commanders email address, the second from a HQ staffer. The second solicitation was sent out soon after the first and may not have been distinguished as a separate survey. Finally, some respondents may have simply declined to be surveyed again.

This change was disseminated much faster than in the previous survey, with a higher comprehension rate. This was despite the fact that these changes were buried in revised DoD standards. The DRMO staff should be commended on their ability to decipher the changes. If the specific changes were highlighted as part of the communication, it might have been easier on all of those who have to learn about them. From the open-ended responses, it was clear that many people knew that these changes were in the works for some time.

One point made by a respondent is worth noting, however. In the original message, the respondents were told to go to the DRMS DEMIL page to find the necessary information. It took four screens of information to get to that point. One ready benefit of the WWW is that it is possible to directly address any resource (i.e., URL) on the Web. It was recommended to DRMS that future communications make it easier on receivers by providing the direct URLs.

Tests 1 and 2 occurred in rapid succession, with no real chance to make changes in administration practices. During data analysis the team noticed that the procedure to get to individual DRMO staff was not working as intended. The data apparently included multiple responses from each DRMO Chief. (This occurred for 12 out of 83 DRMOs on the first survey and 11 in the second.) However, these responses had different answers and came from different Internet Protocol (IP) addresses at different times. The most likely explanation is that Chiefs passed the whole message to them to their subordinates, not just the part that the team had requested they pass on. To address this, a different approach was employed on the third survey. The Chiefs were sent two messages:

1. One message requesting their participation and provided the needed code. They were told they would get a second message that they could pass on in its entirety to their staff.
2. A second message just for their staff.

After this change, the problem recurred 8 times on survey 3.

**Third Test at DRMS.** In late April, DRMS HQ published a memorandum to the National Region Manager, National Zone Managers, and the DRMO Chiefs about the demanufacturing contracts for electrical and electronic scrap. This policy change should have been communicated down the following hierarchy:

The DRMO Chief to:

- The Property Management Branch to the Demil Coordinator, Receiving Coordinator(s)/Schedulers, and Receivers.
- The Distribution Branch Chief to the Marketing Specialist(s); and
- The Environmental Branch Chief

Based on 12 Zone Managers and 83 DRMOs, it was estimated that there could be approximately 510 respondents. 92 responses were received, an 18% response rate.

For surveys 2 and 3, response rates were reported by Zone, responses by Chiefs per Zone, and the response rate for Zone Managers overall. For example, Figure 6 includes this information for Survey 3.

	Zone											
	1	2	3	4	5	6	7	8	9	10	11	12
Total Rate	31	32	3	22	6	13	23	26	35	35	26	13
Chiefs	60	67	17	43	17	33	17	50	50	56	17	36
Zone Mgrs	33											

**Figure 6 - Response rates for DRMS Survey 3**

For this message, respondents scored quite well overall but 18% had never heard about the change, a cause for concern for management.

At the request of DRMS, an open-ended item was added to this last survey, where respondents could sound off about our surveys, the message in question, or any other topic. DRMS people took great advantage of this opportunity, with 16 respondents providing some useful information that was passed on to DRMS in its entirety (after removing any part of the response that could help identify its source). Since this was not part of the original project plan and was added only for the customer, the team did not expend any effort to code the open-ended responses.

#### 4.3.2 Assess Results

The reports included in the Appendices were provided to each organization. Because many of these tests were delayed until the last few weeks of the project, there was no time or resources to visit each organization in person.

#### 4.3.3 Communicate Results to Each Organizational Unit

These summaries were reviewed with the organizational units, providing valuable input to the revisions to the forms and methods.

#### 4.3.4 Revise Forms and Methods

As described in the previous sections, a number of changes were made to the data collection instrument between tests. These changes are described in the prose above and can be seen in the different forms included in the Appendices.

## 5.0 DISCUSSION

Overall, the project produced some positive results, albeit over a much longer period than originally planned. The initial schedule covered 8 months. In the end, the project lasted for 15. The team tried to make our interactions with the research sites as efficient as possible. The visits were planned carefully before arriving to make sure as much of the needed information as possible was obtained. One important lesson was that outside consultants (essentially the role played by the project team) can have greater success in a shorter period if they plan to have their collaborators do most of what they need during a planned meeting. When the team worked this way, the support needed was acquired most of the time. When the collaborators were left to their own devices their real jobs took precedence (as one would expect).

Some of this delay was unavoidable. Trying to do action research can be difficult enough. When the host organization is in a period of great change, the challenge is much greater. This is the downside of being "outsiders". It is harder to get support for tasks that are off the critical path of your subjects. On the other hand, being an outsider in this situation had some big advantages. The response rate to the DRMS baselining survey was approximately 60%, with few callbacks or extra effort taken to pump up the numbers. This cooperation continued with all of the candid responses to the open-ended questions in the effectiveness tests. The team does not believe that an "inside" organization could have gotten the same result. The bottom line is that when a plan is created to conduct similar work, make sure that your timelines account for these natural, unavoidable delays.

The project was based on an important assumption, i.e., the team could readily use data collection instruments tested by other researchers for our purposes. In practice, the project's experience with this assumption was mixed.

The baselining survey produced some important results. At WR-ALC, the project team knew a lot about the culture and issues facing the organization from observation and anecdotal sources. These beliefs were strongly supported by the empirical results. The DRMS results gave us valuable insights into the nature of the organization, highlighting the split between the HQ and DRMOs. As described in the previous sections, the survey included several sections, two of which came from existing surveys. The Glaser et al organizational culture survey provided a quick diagnosis of important organizational issues, such as meetings, teamwork, and supervision. The face validity of these results at WR-ALC caused the C-141 WSSC Chief to take immediate action on some issues. The Roberts and O'Reilly instrument allows you to dig deeper into many issues, such as sources and uses of information. For example, the survey results showed differences in communication sources between HQ DRMS and the DRMOs. At HQ, people get most of their information from peers, while in the field communication is much more hierarchical.

The sections that were added, on computing issues and facts about the current organizational change, worked well. At DRMS, there was some confusion about our directions on the computing issues section. While the printed instructions said that only DRMO Chiefs were to complete those questions, many respondents provided data. To correct this the team did callbacks with each Chief to collect the data directly. The fact gathering process resulted in some useful data that helped the team understand the target organizations better. Turning this data into questionnaire items was one major source of delay. The DRMS baselining survey lagged behind the WR-ALC survey by almost two months because the team had to wait for input. Once the items were created, the respondents at DRMS and the F-15 WSSC did not demonstrate adequate knowledge of these facts. The F-15 WSSC staff scored quite well. The baselining results showed that the F-15 group scored higher on the morale and trust questions (our fieldwork illustrated this qualitatively). You would expect that people with higher morale and more trust might be more motivated to participate in surveys (and probably would be more motivated in their jobs). This can explain some of the difference. Another possible explanation is that the surveys did not ask them the right facts. However, the team used most of the same information sources that staff members would use to get this information (except the grapevine, which the team had no systematic way to tap). These facts were also checked with many of the managers who are responsible for communicating the on-going changes with the employees. The bottom line is that the respondents did not know this information. It is up to management to determine an appropriate course of action.

Our experience with the ECCO instrument was not as positive. Some changes were mundane, such as adding response options to reflect communication technologies such as FAXs and the Internet. However, the respondents

quickly pointed out some other necessary changes that were subtler. For example, the survey only allowed respondents to "receive" information from one of four people: supervisors above their immediate supervisor, their supervisor, their peers, or their subordinates. With all of the communication options available, this question needed the "None of the Above" that was added for the later DRMS test. The biggest problem at both sites was in the "talking/sound" methods of receiving information. People had a hard time distinguishing between "face-to-face", "small groups", and "organized meetings". At first, the team thought that people were not reading all of the options before deciding. However, when the instructions were changed on that question to explicitly ask the respondents to review all options before selecting the best, the problem still occurred. (One could argue that the people were not reading the instructions either, but there is only so much that a survey administrator can do.)

The team unintentionally caused some administration problems. The first WR-ALC effectiveness survey included four "true" statements and two "false" statements, as described in the section on that test. This caused problems in the analysis that would be difficult to automate. One way around this in future applications is to use true/false questions.

There was some discussion among our team about the large difference in open-ended comments between participating organizations. The DRMS respondents used the open-ended items as an opportunity to vent their frustration. The WR-ALC respondents said almost nothing. As researchers, the open-ended responses helped us interpret the quantitative data. The team hopes that the DRMS managers found the information as valuable.

## **5.1 High Level Software Requirements**

The project team was fortunate to be able to conduct some surveys using the WWW. As originally planned, this pilot included only paper surveys. Some internal staff changes and the addition of DRMS as a research site made the use of the WWW a necessity. ERIM hosted the site on its secure Web server. (Based on ERIMs experience with projects like this, users feel better if their interactions occur in a secure environment, even if the data is not particularly sensitive or valuable. The project team recommends that any system like this be housed on a secure server.)

A HQ DRMS staff member sent respondents a custom email. (These messages were created using Microsoft Office applications. The process could readily be automated using Visual Basic.) The message included a URL for a welcome page. Once they arrived at this page, they entered a username and password provided in the email. Once logged in, they entered a code number from the email to get to the survey.

The survey form was supported by some error checking code. This greatly reduced erroneous answers. After completing the survey and clicking on the "Submit" button, the data was posted to a Microsoft Access database. The team believes that these tools could be readily integrated to develop this system. A diagram of the system is shown in Figure 7. The "DB Schema" interface is part of the administration subsystem. As seen in this project, having up-to-date respondent information is one of the most critical parts of making this system work. A second interface, the "Enter Data" screen, will be required for managers to create the effectiveness instruments and describe the desired respondents. Managers will need Web access to create these forms and to review the results. An email address will be required so that they can be notified when the analysis is completed. Microsoft Excel was used as the "data processing module" for the pilot. A production system might be better served by something more powerful, although the HTML creation capabilities of Microsoft tools make them attractive. Finally, once the analysis is complete, managers (and respondents) would be directed to review the results on the Web.

One development lesson learned on the **RAPTR** project needs to be repeated here. If possible, try to use plain "vanilla" WWW techniques. On **RAPTR** that project team got into trouble when the software development contractor put in features that required a specific version of a specific browser for the system to work as intended. Since any CAP system may be deployed in organizations that do not have a homogeneous computing environment, taking this approach can avoid some problems. At the very least, the development team should test the software on several different revisions of the possible browser software that is resident on the possible hardware that respondents may have installed.



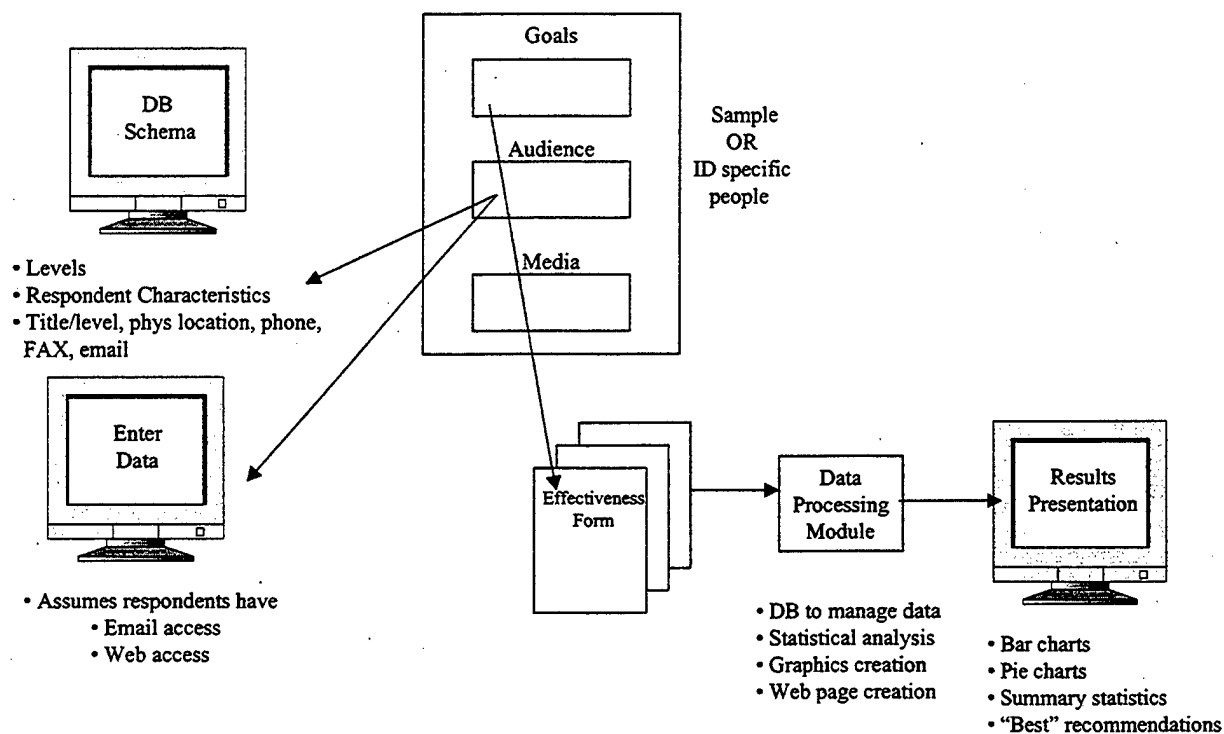


Figure 7 - Structure of automated CAP System

As far as siting this system, the CAP team firmly believes that this project got better data because it was outside the host organizations. Having an outside organization provide this function is something to consider. At the very least, the function should be housed in a trusted organizational unit. Perhaps a human resource organization makes sense. If your organization has an ombudsman, this may be an option. Trust is crucial to making this work for your organization.

## 6.0 CONCLUSION

Without question, effective communication is a critical characteristic of today's world-class organizations. The CAP effort successfully developed a procedure for near-real time assessment of the effectiveness of organizational communications. Such a procedure can have tremendous payoff to an organization by identifying communication problems and their sources in a timely manner, so that remedial action can be taken by management to resolve them. The procedure developed in this effort is largely manual; however, the foundation has been laid for a software tool to automate the procedure in follow-on efforts.

The next step is to construct an automated system based on the results and requirements laid out in this report. Once the system is in place, the goal is to use it to test a large number of messages of different types over an extended period. As in CAP, the system would be used to provide quantitative feedback on the extent and effectiveness of specific communication events. In parallel, researchers would conduct content analyses on these events that would serve two purposes. The researchers would provide qualitative feedback on each event, just as in CAP. The second purpose has longer-range implications. The researchers would develop message types categories, e.g., informational, directive, etc. The communication literature has some results on matching message content with media type. In the second phase of CAP, the researchers would attempt to add to this knowledge base by correlating message types and effectiveness results. The goal is to provide more directed feedback to management and to

provide the data to construct a management communication learning system. This system, which could be a third CAP phase, would guide managers who are planning communication events to select the appropriate means given their communication goals. Specific examples of successful (and unsuccessful) communications could be drawn from the second CAP phase to provide additional guidance. With these tools and this approach, managers could maximize the likelihood of communication success before they send out messages and then get timely feedback for that message. Closing the feedback loop in this manner is essential to improving management communications.

## Appendix A.

## Acronyms

ABC	Activity based costing
ACM	Association for Computing Machinery
AREP	Aircraft Repair Enhancement Program
BPR	business process reengineering
CAP	Communications Assessment Pilot
CDRL	Contract Data Requirements List
CEC	Center for Electronic Commerce
DAC	Days After Contract
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DRMS	Defense Reutilization and Marketing Service
ERIM	Environmental Institute of Michigan
FSA	Forward Support Areas
HQ	Headquarters
IPV	Industrial Prime Vendor
ITI	Industrial Technology Institute
LAN	local area network
MAC	Months After Contract
NR	Non response
ORI	Operational Readiness Inspection
PD	Product Directorate
POC	Point of contact
RAPTR	Readiness Assessment and Planning Tool Research
RE	WR-ALC Reengineering Directorate
SAV	Site Assistance Visit
SOW	Statement of Work
WR-ALC	Warner-Robins Air Logistics Center
WSSC	Weapon System Support Center
WWW	World Wide Web

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## Appendix B. Objectives for Site Visits

1. We must determine what receivers should currently know about specific change efforts through interviews of communicators and content analysis of recent communication events.
  - Review “facts” lists - revise as required; probably best accomplished in a group process (get more views, better consensus)
  - Prioritize, cull most important
2. We also must determine the anticipated frequency and nature of communication events and how often monitoring events may be required. Are there regularly scheduled briefings? Do status reports or other documents have a standard format and come out on a regular schedule? This will help scope out just how many events may have to be tracked by the proposed software system.
  - Need more understanding of events
  - E.g., DRMS example recent training guidelines on Intranet
3. Determine the desired sampling characteristics, i.e., what criteria would managers of the organizational units like to use to select respondents and view summary statistics about their communication effectiveness? While there is some flexibility to change sampling criteria and monitoring frequency during the manual pilot, we need to be rigorous to make sure we specify all possible sampling characteristics for the proposed software system.
  - Define sampling criteria
    - Have natural break between HQ and field
4. Need to discuss how results might be presented

Have ECCO instrument as baseline; we can discuss it and what additions, e.g., demographics, that would have to be added to do some categorization of the results.
5. Review evolving materials with management
  - Baselineing
    - Demographics
    - Culture
    - Communications Climate
    - Infrastructure
    - Facts
  - Effectiveness
    - ECCO
  - Cover letter for each organization
    - DRMS - should we put up on Intranet
      - Project description
      - Cover letter
      - Survey results
6. Sketch out schedule for baselining and event analysis

### Key Participants:

- DRMS - Marketplace Group - Woosley, Mank, Beam; also see Schaberg, Simpson, Allred
- F-15 - Tony Delgiorno, Karen Freyermuth; C-141 - Abe Banks

## **Appendix C. Literature Review**

This appendix includes the results of the literature review conducted by Dr. Julia Gluesing of Cultural Connections.

## Cultural Connections, Inc.

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# Memo

**To:** Stan Przybylinski  
**From:** Julia Gluesing  
**CC:**  
**Date:** May 11, 1998  
**Re:** CAP Project – Communication Assessment Tools

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I have conducted a good first pass through the communication literature, and related management and organizational literature, to locate tested communication effectiveness assessment tools that would fit the objectives of the CAP project.

### Preliminary Results:

- The ECCO survey seems to be the best fit for evaluation of a specific target message, tracing its flow and the recipients evaluation of the message content. This instrument is also one of the most objectives measures I have found, since it does not rely on opinions or attitudes, but on the reporting of communication events.
- Most other assessment instruments look not at specific messages but at perceptions about the quality of communication in general and about the factors that influence the quality of communication. Several instruments fall into this category. I have attached a summary of my findings to this memo.
- Message effectiveness seems to have gone by the wayside as a research topic in recent years, having been replaced by broader issues related to relationships and systems. The more recent research appears to be focused more on communication systems, and larger issues and on the effects of interpersonal and cultural/climate characteristics as variables of influence on internal communication effectiveness. The literature also indicates a significant increase in electronic and computer-mediated communication as a focus of study and in network studies (these studies were out of fashion in the 80s). The issues being researched and measured are related to system/network processes (both formal and informal), and on the conditional context in which communication takes place.

Recommendations and Next Steps:

- Review search results and recommendations with you.
- Continue a more in-depth investigation, if necessary/desired.
- Use the ECCO instrument as the primary data collection tool, and create/use other indices to supplement this instrument. I have a few suggestions about how to do this in the attached pages.

Let me know how you wish to proceed. Thanks.



Summary of initial literature search/review:

- I did finally locate the reference to the ECCO instrument that we have all been referring to:

Goldhaber, G.M., Dennis, H. S. III, Richetto, G. M., & Wiio, O. A. (1986). *Information strategies: New pathways to management productivity*. Norwood, NJ: Ablex. Pp 238-240.

This book also has some other useful instruments.

1. The ICA Audit and the OCD Audit that you are familiar with from the Communication Research Measures book.
2. There is also an instrument on Assessing Communication Contingencies, pp. 71 – 72, which might be useful. I have faxed you these pages from the book.
3. On pages 194-202, there is an instrument that assesses the management communications system. We might find this instrument useful to assess the communication system as a whole – it could be a periodic assessment, and could be worked into a web-based assessment system.
4. Another related instrument for assessing the conditional context in which communication takes place is the Dennis Communication Climate Inventory. I have faxed you a copy of this as well. It is on pages 234 – 237

Overall, this book is very good at providing the background and justification for several of the communication assessment methods and tools. You can try to get a copy of the book, or I can share the copy I have with you.

- The following book of measurement had some indices that could be coupled with the ECCO instrument to provide a more complete assessment of communication effectiveness:

Price, James L. & Mueller, C. W. (1986). *Handbook of organizational measurement*. Marshfield, MA: Pitman.

I have faxed you the relevant pages from the Chapter on Communication – pp 83 85 and 90 – 96.

1. Pages 83 – 85, while they do not contain a ready-made instrument, suggested that there are four dimensions of communication that should be assessed: formal—informal, vertical—horizontal, personal—impersonal, and instrumental—expressive.
  2. Pages 90 – 94 present the O'Reilly and Roberts instrument to measure source credibility and communication behavior. This is probably the instrument most closely related to the objectives in the CAP project.
  3. Pages 94 – 96 discuss additional suggestions for measurement of work units. The authors suggest the creation of an index that measures six features of the work unit having to do with meetings and their characteristics. This could also be useful if we want to construct some added instruments to go along with the ECCO instrument.
- There is also a chapter in one of the older communication yearbooks that presents a review of the literature on the criteria for organizational communication effectiveness. The chapter lays out the criteria, but does not provide any assessment instruments. The criteria provide good justification for creating additional questions, or a new index that we could couple with the ECCO instrument. I have faxed you a copy of this article.

Farace, R. V., Taylor, J. A., & Stewart, J. P. (1978). Criteria for evaluation of organizational communication effectiveness: Review and synthesis. In B. Ruben (Ed.) *Communication Yearbook 2*. Pp. 271-292. New Brunswick, NJ: Transaction Books.

- Two references appear in the book by Cynthia Stohl (1995). *Organizational communication: Connectedness in action*. Newbury Park, CA: Sage. These references could be useful if we want to assess the quality of the

messages in terms of intent versus received meaning, or if we want to see how many communication steps it takes to get from the source to the receiver. My sense is from the study objectives, that this information might be incorporated as part of the feedback data reported to message senders.

1. Stohl, C., & Redding, W. (1987). Messages and message exchange processes. In F. Jablin, L. Putnam, K. Roberts, & L. Porter (Eds.), *Handbook of organizational communication: An interdisciplinary approach* (pp. 451-502). Newbury Park, CA: Sage.

According to Stohl and Redding, each message has four levels. Levels 1 and 2 deal with the *intentions of senders*, what is desired and intended; level 3 represents the *ostensive message*, what is actually verbalized; and level 4 delineates the *receivers' interpretations*. There are often important differences between levels. For example, level 1 represents what communicators would really like to say, in the absence of all constraints (e.g., "Boss, you really don't know what you're talking about"); level 2 captures what they decide they should say ("There may be some other opinions about that issue"); level 3 depicts what they do say ("Sir, that certainly seems to be an interesting possibility"); and level 4 indicates what the message means to the receiver ("That worker always is trying to show she knows more than me.").

2. Shotland, R. (1976). *University communication networks: The small world methods*. New York: Wiley.

"Small World" phenomenon – it takes approximately 6 steps for a randomly selected person in one location to reach a randomly selected person in another. This phenomenon has been replicated in several studies across cultures, contexts and continents and has even become part of a national advertising campaign for a multinational telecommunication company.

- There are some other possible sources of instruments that I can investigate. Some are related to assessing change processes or macro-organizational processes. Others are inventories of research instruments in general and are not specific to communication, but might contain some communication instruments. Most also date from the late 60s – early 80s. I have not looked into any of them yet. I have put an asterisk next to the references I think might yield the most likely possibilities. You can have someone at ITI look into these references, or I can do it. It's up to you.

Bonjean, Charles M., Richard J. Hill, and S. Dale McLemore. (1967). *Sociological measure: An inventory of scales and indices*. San Francisco: Chandler.

Kegan, D. L. (1970) *Scales/RIQS: An inventory of research instruments*. Evanston, IL: Northwestern University Technological Institute.

\*Seashore, S., Lawler, E., Mirvis, P., & Cammann, C. (Eds.) (1983). *Assessing organizational change*. New York: Wiley.

Shaw, M.E. and J.W. Wright. (1967). *Scales for the measurement of attitudes*. New York: McGraw-Hill.

\*Van de Ven, A., & Ferry, D. (1980). *Measuring and assessing organizations*. New York: Wiley.

## **Appendix D. DRMS Baselineing**

This appendix contains the following documents from our baselining effort at DRMS:

- The DRMS cover letter included in our mailing
- The DRMS baselining survey - DRMSsurvey4.doc
- The baselining report provided to DRMS.



To all employees:

Communication is an important issue in any organization. This is especially true in a time of dynamic change, like the one that we are currently experiencing. We, at HQ DRMS suspect that we are not doing a very good job in the area of communication. Because of this, management and our union have agreed to participate in an on-going research project, sponsored by the Air Force, examining this issue. The Center for Electronic Commerce (CEC) of Ann Arbor, MI is conducting this communications assessment pilot program. This is not just another case of management hiring consultants to tell us what to do. DRMS is not funding this project.

CEC staff will be conducting two types of employee surveys. First, a baseline survey will ask employees what they know about particular DMRS-related topics. This survey should take about 10-15 minutes to complete. All responses will be sent directly to the CEC and will be completely confidential. No DRMS staff will ever see any individuals completed survey. Once the data is collected and analyzed, everyone who participated will be appraised of the results.

After this initial survey, some of you may also receive one or more questionnaires asking about specific messages or publications. The surveys will include some demographic questions so that we can determine which groups are receiving information well and which are not. The data collected will be analyzed, with the results presented back to DRMS management, the union, and all of you who responded to the surveys.

In brief, this project is about:

- Are people getting the information they want and need to either be more effective and comfortable in their jobs, or better prepared for all of the ongoing changes?
- If our current way of communicating is not adequate, what do we need to do to correct it?

What's in it for us? This project is aimed at improving conditions for all DRMS employees. The results and recommendations of this pilot should help all of us at DRMS to improve our internal communications, reduce misunderstandings, and provide the information you need and want in a timely manner.

For this project to succeed we need your help. If you receive a survey, please complete it and return it. Our goal is to achieve a one hundred percent response rate. Thanks for your participation in this effort.

Col. Robert Mansfield

Wayne Woosley

Ronald Hawkins

## Communication Baseline Survey

As part of an Air Force Research Laboratory (AFRL) project, your organization has agreed to participate in the development of a process and a set of tools to rapidly assess the effectiveness of communication within organizations. The first step in looking at communication effectiveness is for our project team to develop an understanding of your organization and its current change efforts. This survey will provide data that, when analyzed, will help us develop that understanding.

All of this survey data will be processed at the Center for Electronic Commerce with only summary information reported back to your organization. All specific responses will be held in the strictest confidence. No information you provide will be attributed to its source in any reporting we do back to your organization. If you have any comments or questions, please contact us using the information below.

Stanley M. Przybylinski  
Center for Electronic Commerce  
2901 Hubbard Road  
Ann Arbor, MI 48105  
**Phone:** (734) 769-4517  
**FAX:** (734) 213-3407  
**Email:** [smp@erim.org](mailto:smp@erim.org)

Ronald E. Kohler  
Center for Electronic Commerce  
2901 Hubbard Road  
Ann Arbor, MI 48105  
**Phone:** (734) 769-4384  
**FAX:** (734) 213-3407  
**Email:** [rek@erim.org](mailto:rek@erim.org)

or

Please complete all of the items on the following pages to the best of your ability. When you finish the survey, please return it to:

Stanley M. Przybylinski  
Center for Electronic Commerce  
2901 Hubbard Road  
Ann Arbor, MI 48105  
**Phone:** (734) 769-4517  
**FAX:** (734) 213-3407  
**Email:** [smp@erim.org](mailto:smp@erim.org)

Thank you for your time and effort.

## Background

1. Work location  
☐ HQ DRMS.<sub>1</sub>  
☐ DRMO.<sub>2</sub>
2. How long have you worked at this location? \_\_\_\_\_
3. Grade \_\_\_\_\_
4. How long have you worked in your current position? \_\_\_\_\_

## Culture

While our project focuses on communication, organizational culture and communication are closely related. Many attributes of culture, such as norms and trust, directly affect how people communicate. Please answer the following questions about your organization's culture for the work location you designated above.

For the following questions, please check the box the best represents your opinion about the numbered statements:

	Strongly disagree. <sub>1</sub>	Somewhat disagree. <sub>2</sub>	Neither agree nor disagree. <sub>3</sub>	Somewhat agree. <sub>4</sub>	Strongly agree. <sub>5</sub>
5. People I work with are direct and honest with each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. People I work with accept criticism without becoming defensive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. People I work with resolve disagreements cooperatively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. People I work with function as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. People I work with are cooperative and considerate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. People I work with constructively confront problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. People I work with are good listeners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. People I work with are concerned about each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Labor and management have a productive working relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. This organization motivates me to put out my best efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. This organization respects its workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. This organization treats people in a consistent and fair manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Working here feels like being part of a family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. There is an atmosphere of trust in this organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. This organization motivates people to be efficient and productive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please turn to the next page.

	Strongly disagree. <sub>1</sub>	Somewhat disagree. <sub>2</sub>	Neither agree nor disagree. <sub>3</sub>	Somewhat agree. <sub>4</sub>	Strongly agree. <sub>5</sub>
20. I get enough information to understand the big picture here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. When changes are made the reasons why are made clear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I know what's happening in work areas outside of my own.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I get the information I need to do my job well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I have a say in decisions that affect my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I am asked to make suggestions about how to do my job better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. This organization values the ideas of workers at every level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. My opinions count in this organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. My job requirements are made clear by my supervisor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. My supervisor tells me when I do a good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. My supervisor takes criticism well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. My supervisor delegates responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. My supervisor is approachable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. My supervisor gives me criticism in a positive manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. My supervisor is a good listener.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. My supervisor tells me how I'm doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Decisions made at meetings get put into action.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Everyone takes part in discussions at meetings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Our discussions in meetings stay on track.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Time in meetings is time well spent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Meetings tap the creative potential of the people present.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Please turn to the next page.*

## Organizational Communication

*This is a series of questions about how people communicate at work. Imagine a typical week at work, and answer the questions accordingly. Please attempt to answer all the questions.*

41. Do you have subordinates working for you?

- ☐ Yes.<sub>1</sub>
- ☐ No.<sub>2</sub>

*Please indicate the degree of your agreement with each statement by checking the most appropriate alternative below each statement.*

42. How free do you feel to discuss with your immediate superior the problems and difficulties you have in your job without jeopardizing your position or having it "held against you" later in this organizations?

- ☐ Very cautious.<sub>1</sub>
- ☐ Somewhat cautious.<sub>2</sub>
- ☐ It depends.<sub>3</sub>
- ☐ Somewhat free.<sub>4</sub>
- ☐ Completely free.<sub>5</sub>

43. How often is your immediate superior successful in overcoming restrictions (such as regulations or quotas) in getting you the things you need in your job such as equipment, personnel, etc.?

- ☐ Never successful.<sub>1</sub>
- ☐ Very seldom successful.<sub>2</sub>
- ☐ Successful half of the time.<sub>3</sub>
- ☐ Successful most of the time.<sub>4</sub>
- ☐ Always successful.<sub>5</sub>

44. Immediate superiors at times must make decisions that seem to be against the interests of their subordinates. When this happens to you as a subordinate, how much trust do you have that your immediate superior's decision was justified by other considerations?

- ☐ No trust.<sub>1</sub>
- ☐ A little trust.<sub>2</sub>
- ☐ Trust half of the time.<sub>3</sub>
- ☐ Trust most of the time.<sub>4</sub>
- ☐ Trust all of the time.<sub>5</sub>

45. In general, how much do you feel that your immediate superior can do to further your career in this organization?

- ☐ Can do nothing.<sub>1</sub>
- ☐ Can do a little.<sub>2</sub>
- ☐ Can do a lot.<sub>3</sub>

46. How much weight would your immediate superior's recommendation have in any decision that would affect your standing in this organization, such as promotions, transfers, etc.?

- ☐ No weight.<sub>1</sub>
- ☐ A little weight.<sub>2</sub>
- ☐ A lot of weight.<sub>3</sub>

*Please turn to the next page.*



47. As part of your present job plans, how much do you want a promotion to a higher position at some point in the future?

- ☐ Content as I am.<sub>1</sub>  
☐ Somewhat want a promotion.<sub>2</sub>  
☐ Very much want a promotion.<sub>3</sub>

48. How important is it for you to progress upward?

- ☐ Not at all important.<sub>1</sub>  
☐ Somewhat important.<sub>2</sub>  
☐ Very important.<sub>3</sub>

49. To what extent do you have confidence and trust in your immediate superior regarding his/her general fairness?

- ☐ No confident and trust.<sub>1</sub>  
☐ A little confident and trust.<sub>2</sub>  
☐ Confident and trust half of the time.<sub>3</sub>  
☐ Confident and trust most of the time.<sub>4</sub>  
☐ Complete confident and trust.<sub>5</sub>

While working, what percentage of the time do you spend interacting with:

50. \_\_\_\_% Immediate Superiors?  
 51. \_\_\_\_% Subordinates?  
 52. \_\_\_\_% Peers (others at same job level)?  
 100%

Of the total time you engage in communications while on the job, about what percentage of the time do you use the following methods to communicate:

53. \_\_\_\_% Written?  
 54. \_\_\_\_% Face-to-face?  
 55. \_\_\_\_% Telephone?  
 56. \_\_\_\_% Other? (specify) \_\_\_\_\_  
 100%

How accurate is information that you receive from:

- |                                       | Never<br>accurate. <sub>1</sub> | Inaccurate most<br>of the time. <sub>2</sub> | Accurate half of<br>the time. <sub>3</sub> | Accurate most<br>of the time. <sub>4</sub> | Always<br>accurate. <sub>5</sub> |
|---------------------------------------|---------------------------------|--|--|--|----------------------------------|
| 57. Immediate superiors?              | <input type="checkbox"/>        | <input type="checkbox"/>                     | <input type="checkbox"/>                   | <input type="checkbox"/>                   | <input type="checkbox"/>         |
| 58. Subordinates?                     | <input type="checkbox"/>        | <input type="checkbox"/>                     | <input type="checkbox"/>                   | <input type="checkbox"/>                   | <input type="checkbox"/>         |
| 59. Peers (others at your job level)? | <input type="checkbox"/>        | <input type="checkbox"/>                     | <input type="checkbox"/>                   | <input type="checkbox"/>                   | <input type="checkbox"/>         |

How clear and understandable is information that you receive from:

- |                                       | Never<br>clear. <sub>1</sub> | Unclear most of<br>the time. <sub>2</sub> | Clear half of the<br>time. <sub>3</sub> | Clear most of<br>the time. <sub>4</sub> | Always clear. <sub>5</sub> |
|---------------------------------------|------------------------------|---|---|---|----------------------------|
| 60. Immediate superiors?              | <input type="checkbox"/>     | <input type="checkbox"/>                  | <input type="checkbox"/>                | <input type="checkbox"/>                | <input type="checkbox"/>   |
| 61. Subordinates?                     | <input type="checkbox"/>     | <input type="checkbox"/>                  | <input type="checkbox"/>                | <input type="checkbox"/>                | <input type="checkbox"/>   |
| 62. Peers (others at your job level)? | <input type="checkbox"/>     | <input type="checkbox"/>                  | <input type="checkbox"/>                | <input type="checkbox"/>                | <input type="checkbox"/>   |

Please turn to the next page.

63. If information you receive is not clear or understandable, do you generally ask for help or clarification?

- ☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

If you answered, "No", please proceed to question 67.

Please list the sources you generally approach for clarification:

64. \_\_\_\_% Immediate Superiors?  
65. \_\_\_\_% Subordinates?  
66. \_\_\_\_% Peers (others at same job level)?  
100%

67. How often do you find that the lack of available information hinders your performance in this organization?

- ☐ Never hinders.<sub>1</sub>  
☐ Seldom hinders.<sub>2</sub>  
☐ Hinders half of the time.<sub>3</sub>  
☐ Hinders most of the time.<sub>4</sub>  
☐ Always hinders.<sub>5</sub>

68. How often do you feel that you receive more information than you can efficiently use in this organization?

- ☐ Never have too much information.<sub>1</sub>  
☐ Seldom have too much information.<sub>2</sub>  
☐ Have too much information half of the time.<sub>3</sub>  
☐ Have too much information most of the time.<sub>4</sub>  
☐ Always have too much information.<sub>5</sub>

Of the total time you spend receiving information at work, what percentage comes from:

69. \_\_\_\_% Immediate Superiors?  
70. \_\_\_\_% Subordinates?  
71. \_\_\_\_% Peers (others at same job level)?  
100%

Of the total time you spend sending information at work, what percentage goes to:

72. \_\_\_\_% Immediate Superiors?  
73. \_\_\_\_% Subordinates?  
74. \_\_\_\_% Peers (others at same job level)?  
100%

*Please turn to the next page.*

When transmitting information to others in this organization, do you summarize by emphasizing those aspects that are important and minimizing those aspects that are unimportant? How often do you do this with:

	Never <sub>1</sub>	Seldom <sub>2</sub>	Half of the time <sub>3</sub>	Most of the time <sub>4</sub>	Always <sub>5</sub>
75. Immediate superiors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
76. Subordinates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
77. Peers (others at your job level)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Of the total amount of information you receive at work, how much do you pass on to:

	None <sub>1</sub>	Some <sub>2</sub>	Half <sub>3</sub>	Most <sub>4</sub>	All <sub>5</sub>
78. Immediate superiors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
79. Subordinates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80. Peers (others at your job level)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How desirable do you feel it is in your department to interact frequently with:

	Very undesirable <sub>1</sub>	Somewhat undesirable <sub>2</sub>	Neither desirable or undesirable <sub>3</sub>	Somewhat desirable <sub>4</sub>	Very desirable <sub>5</sub>
81. Immediate superiors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
82. Subordinates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
83. Peers (others at your job level)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

84. Are there forces that cause you to distort information that you send upward in this organization?

- ☐ There are no forces.<sub>1</sub>
- ☐ There are very few forces.<sub>2</sub>
- ☐ There are lots of forces.<sub>3</sub>

85. Put check the box next to the expression that best represent how you feel about communications in general, including the amount of information you receive, interaction with your immediate superior and others, the accuracy of information available, etc.

- ☐ Very positive.<sub>1</sub>
- ☐ Positive.<sub>2</sub>
- ☐ Neutral.<sub>3</sub>
- ☐ Negative.<sub>4</sub>
- ☐ Very negative.<sub>5</sub>

Please turn to the next page.

## Computing Issues

Many of the changes to the business processes within your organization will require you to use computers more as part of your daily work. Much of this work involves communication of one form or another. Please answer the following questions about your computer usage.

86. Do you have access to a computer?

- ☐ Yes, I have one for my personal use.<sub>1</sub>  
☐ Yes, I share one with one or more co-workers.<sub>2</sub>  
☐ No.<sub>3</sub>

If you answered "No", please proceed to Question 107.

87. What percentage of your workday would you estimate that you spend using your computer? \_\_\_\_\_%

88. Does this computer provide access to the Internet?

- ☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

89. Do you have your own electronic mail address at work?

- ☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

In the next few questions we would like you to assess your skill at using different types of computer applications as part of your day-to-day work:

- Applications programs like Microsoft Word, Microsoft Excel, Microsoft PowerPoint, etc.
- Electronic mail programs like Microsoft Outlook, Eudora, cc: Mail, etc.
- Internet browsers like Netscape, Internet Explorer, etc.
- DRMS business systems like DAISY, MILSTRIP, IRIS, RTD, etc.

If you do not normally use that type of application at work, please check "Do Not Use".

	Expert. <sub>1</sub>	Intermediate. <sub>2</sub>	Average. <sub>3</sub>	Novice. <sub>4</sub>	Do Not Use. <sub>5</sub>
90. Applications program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
91. Electronic mail programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
92. Internet browsers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
93. DRMS business systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For these same types of computer applications we'd like you to assess the level of training you have received to date:

	More than enough. <sub>1</sub>	Enough. <sub>2</sub>	Not enough. <sub>3</sub>	None. <sub>4</sub>	Do Not Use. <sub>5</sub>
94. Applications program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
95. Electronic mail programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
96. Internet browsers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
97. DRMS business systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please turn to the next page.

As the use of computer systems becomes more important in your every day operations, support for those systems becomes more important. The next few questions focus on support for your computer systems.

We are interested in how you obtain your computer support. The "Full Time" and "Part Time" options below are for people on your staff that provide support. Some DRMOs have contractor support and some get support through other means.

	Full Time <sub>1</sub>	Part Time <sub>2</sub>	Contractor <sub>3</sub>	Other <sub>4</sub>	None <sub>5</sub>
98. Hardware Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99. Software Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In the next few questions we would like you to assess the skill of your support person in assisting you with the different types of computer problems you may face as part of your day-to-day work.

- Applications programs like Microsoft Word, Microsoft Excel, Microsoft PowerPoint, etc.
- Electronic mail programs like Microsoft Outlook, Eudora, cc: Mail, etc.
- Internet browsers like Netscape, Internet Explorer, etc.
- DRMS business systems like DAISY, MILSTRIP, IRIS, RTD, etc.
- Networking issues

	Expert <sub>1</sub>	Intermediate <sub>2</sub>	Average <sub>3</sub>	Novice <sub>4</sub>	Do Not Use <sub>5</sub>
100. Applications program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
101. Electronic mail programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102. Internet browsers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103. DRMS business systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104. Network issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

105. Some computing support is provided through a hot line to HQ DRMS. For a typical systems problem, how long does it take to receive a response? Please check one.

- |   |  |
|---|--|
| <input type="checkbox"/> 0 to 4 hours <sub>1</sub>  | <input type="checkbox"/> 16 to 24 hours <sub>4</sub>     |
| <input type="checkbox"/> 4 to 8 hours <sub>2</sub>  | <input type="checkbox"/> 1 to 2 days <sub>5</sub>        |
| <input type="checkbox"/> 8 to 16 hours <sub>3</sub> | <input type="checkbox"/> Longer than 2 days <sub>6</sub> |

106. For a typical systems problem, how would you rate the quality of service you receive?

- ☐ Excellent<sub>1</sub>
- ☐ Good<sub>2</sub>
- ☐ Average<sub>3</sub>
- ☐ Poor<sub>4</sub>

Please turn to the next page.

### Computing Issues (con't)

*ONLY DRMO Chiefs should complete this section. If you do not currently hold this position, please proceed the next page.*

*Computers are increasingly becoming essential to the way all organizations function. Your organization is no exception. Since much of the communication that occurs is computer-based, as part of our project we need to understand the pattern of computer usage within each DRMO. While the previous section did contain questions about individual computer usage, we are only sampling from the DRMO staff. Hopefully, all DRMO chiefs will complete this section.*

*There are several pieces of information we would like to obtain: how many computers you have, how many are used primarily by one person vs. shared, how many people use email, and how many of your machines have Internet access. For example, if your DRMO has 20 people, 10 computers (5 used mostly by one person and 5 in more public areas), one work-related individual Internet email account, and one computer with Internet access, your table would look like:*

# of People	Total Number of Computers		Individual Email Accounts	Internet Access
	Individual	Shared Access		
20	5	5	1	1

Please enter a number into each cell. Approximate answers are acceptable.

# of People	Total Number of Computers		Individual Email Accounts	Internet Access
	Individual	Shared Access		
107.	108.	109.	110.	111.

*Please turn to the next page.*

## Enterprise Management

The following questions are intended to gauge your understanding of the principles of Enterprise Management and the changes DRMS has undergone over the last several years. New policies, procedures, and processes have been and will continue to be put into place. For DRMS to succeed, all employees must be on the "same page" about these efforts.

The questions in this section are all multiple choice. For each statement, please check the box to the right of the numbered item only if you think it applies to that statement.

Please complete all items.

### Definitions

Enterprise Management (EM) is:

Please check all that apply

- |  |                          |
|--|--------------------------|
| 1. Another name for downsizing.                                      | <input type="checkbox"/> |
| 2. An approach to use market factors to determine what to privatize. | <input type="checkbox"/> |
| 3. Just about privatization.   | <input type="checkbox"/> |

Privatization and outsourcing decisions will:

Please check all that apply.

- |  |                          |
|--|--------------------------|
| 4. Be the result of political or bureaucratic forces.                  | <input type="checkbox"/> |
| 5. Occur only when they can lower cost and increase performance.       | <input type="checkbox"/> |
| 6. Be based on an analysis of strategic and economic factors.          | <input type="checkbox"/> |
| 7. Turn contractors who take over DRMS functions into our competitors. | <input type="checkbox"/> |
| 8. Not result in lost Government jobs.                                 | <input type="checkbox"/> |

The goals of Enterprise Management include:

Please check all that apply.

- |  |                          |
|--|--------------------------|
| 9. Reducing infrastructure by 1/3 by the end of FY 98.   | <input type="checkbox"/> |
| 10. Giving customers a choice in service providers.  | <input type="checkbox"/> |
| 11. Reducing overhead by 10% in FY 97 and 15% in FY 98.  | <input type="checkbox"/> |
| 12. Introducing the private sector into DRMS activities where mature commercial markets exist. | <input type="checkbox"/> |
| 13. Maximizing accountability and results for Government services.                             | <input type="checkbox"/> |

If we are successful with Enterprise Management: Please check all that apply.

- |  |                          |
|--|--------------------------|
| 14. Government employees will perform all Utility services.  | <input type="checkbox"/> |
| 15. The private sector will be introduced into those activities of the DRMS mission where mature commercial markets exist. | <input type="checkbox"/> |
| 16. Marketplace services will all be contracted out.   | <input type="checkbox"/> |
| 17. Privatization and outsourcing will occur only when they can lower cost and increase performance.                       | <input type="checkbox"/> |

Please turn the page.

### Mechanisms

Implementing the philosophies of Enterprise Management required DRMS to identify, test, and apply several new approaches to the planning, management, and execution of DRMS business functions.

Our new business processes will:

*Please check all that apply.*

- |   |                          |
|---|--------------------------|
| 18. Ensure that all Utility services are performed by Government employees.                 | <input type="checkbox"/> |
| 19. Help DRMS become a "knowledge-based" organization.                                      | <input type="checkbox"/> |
| 20. Include the use of service contracts, sales contracts, and public/private partnerships. | <input type="checkbox"/> |
| 21. Contract out all Marketplace services.  | <input type="checkbox"/> |
| 22. Practically eliminate physical handling and transporting property by DRMOs.             | <input type="checkbox"/> |

Activity Based Costing (ABC) will help DRMS:

*Please check all that apply.*

- |  |                          |
|--|--------------------------|
| 23. Determine which DRMOs to close.  | <input type="checkbox"/> |
| 24. Management to identify specific positions to target for RIF actions.             | <input type="checkbox"/> |
| 25. Measure the true cost of performing activities to produce products and services. | <input type="checkbox"/> |
| 26. Identify how human and financial resources are consumed.                         | <input type="checkbox"/> |

Many of these initiatives are described in the EM News, a publication created to increase awareness among DRMS employees.

The EM News:

*Please check all that apply.*

- |  |                          |
|--|--------------------------|
| 27. Is FAXed to each DRMO and copied for distribution to each employee.        | <input type="checkbox"/> |
| 28. Is available on the World Wide Web (WWW).                                  | <input type="checkbox"/> |
| 29. Includes a bulletin board system to ask questions and provide feedback.    | <input type="checkbox"/> |
| 30. Provides a phone and FAX number for those who do not have computer access. | <input type="checkbox"/> |

The use of Office of the Management and Budget (OMB) Circular A-76, "Performance of Commercial Activities":

*Please check all that apply.*

- |  |                          |
|--|--------------------------|
| 31. Will first be applied within DLA to both the Defense Distribution Center and DRMS. | <input type="checkbox"/> |
| 32. Will be directed by an outside contractor.   | <input type="checkbox"/> |
| 33. Is to conduct managed competitions between the public and private sector.          | <input type="checkbox"/> |
| 34. Will initially focus on selected processes at 10 DRMOs.                            | <input type="checkbox"/> |
| 35. Will be led by DRMS with contractor support.                                       | <input type="checkbox"/> |
| 36. First occurred during the Eisenhower administration.                               | <input type="checkbox"/> |
| 37. Will only be to privatize DRMO functions.  | <input type="checkbox"/> |
| 38. Always results in a process being "contracted out".                                | <input type="checkbox"/> |
| 39. Always results in the loss of some Government jobs.                                | <input type="checkbox"/> |

*Please turn the page.*



As part of the new Recycling Control Point (RCP) definition: *Please check all that apply.*

- 40. Property remains at the Depots to save labor and other costs. ☐
- 41. Several DRMOs may no longer perform this function. ☐
- 42. The receipt, screening, and sales processes are automated. ☐
- 43. DRMS-CR (Battle Creek) acts as a "virtual DRMO". ☐
- 44. The Depot retains physical custody of the property throughout the R/T/D/S cycles. ☐
- 45. The World Wide Web will be an essential part of this function. ☐

#### Service Centers

In mid-April, DRMS opened two new HQ offices to support CONUS field activities. These "Support Centers" will:

*Please check all that apply.*

- 46. Have dedicated personnel who are knowledgeable about all part of our business. ☐
- 47. Be staffed by HQ personnel with little or no field experience. ☐
- 48. Only focus on dealing with questions and issues from the field. ☐
- 49. Provide support and technical guidance to the Zone Managers and DRMOs in the day-to-day business of field offices. ☐
- 50. Provide access to experts from other HQ DRMS areas. ☐
- 51. Eventually handle most of the information flow to and from the field. ☐

*Thank you for your time and effort.*

# Communication Baseline Survey Results:

## Defense Reutilization Marketing Service (DRMS)

ERIM  
Center for Electronic Commerce  
December 1998

The Center for Electronic Commerce recently administered a survey to members of the Defense Reutilization and Marketing Service (DRMS). The survey consisted of questions about culture, communication, computing issues, and the implementation of the Enterprise Management (EM), including both structure and processes. The focus of investigation was the communication within the Marketplace group and those individuals at Defense Reutilization and Marketing Offices (DRMOs) that communicate most with this HQ organization. The data collected will serve to provide a baseline about current knowledge and communications practices as part of a pilot program funded by the Air Force Research Laboratory (AFRL/HESS). We would like to thank the HQ DRMS staff who assisted us and all of our respondents for their time and effort.

### Interpreting the Results

The complete baselining report for DRMS consists of three elements:

1. This summary document
2. A set of tables entitled "DRMS Communication Baselining Survey Summary Statistics" that provide summary statistics for all of the questions. **(These are NOT included in this appendix.)**
3. A copy of the original survey for reference.

After a section with "General Comments", the sections of this summary match the section headings of the baselining questionnaire. In some cases questions may seem to apply to more than one heading. For example, there are some questions under the heading of "Organizational Communication" that are related to culture. For the purposes of this summary, the analysis of all questions will occur under the headings in the original survey.

In the summary statistics document, summary statistics for each question are listed by question number. Statistics were calculated for seven different categories:

1. Headquarters (HQ) (100 surveys distributed)
2. All DRMOs (34 DRMOs surveyed in all)
3. DRMOs surveyed in the East region (East) (17 in all)
4. DRMOs surveyed in the West region (West) (17 in all)
5. Small DRMOs (3 in East, 4 in West; from 5 to 11 surveys distributed per DRMO)<sup>1</sup>
6. Medium DRMOs (5 in East, 6 in West; from 8 to 10 surveys distributed per DRMO)
7. Large DRMOs (9 in East, 7 in West; from 8 to 39 surveys distributed per DRMO)

The letter N represents the number of usable responses we received for that item. Next to that number we show the mean (or arithmetic average) of the responses to that question. In some cases, several items are also combined to create a score for some attribute of your organization, such teamwork, and information flow. Also, please note that results are presently somewhat differently for several questions. Questions 41, 63, 88, and 89 were "Yes/No" questions. The notation "Y/N/NR" next to the question number indicates that the three summary statistics for that question for the number of "Yes", "No", and "Non-Responses". For example, when question 41 was posed to HQ respondents, 12 answered "Yes", 45 answered "No", and there was 1 "Non-Response".

---

<sup>1</sup> Total DRMO staff, not number of respondents, determined "Size".

For most of the "Yes/No" questions we included the actual number of responses, i.e., if 21 people answered a question "Yes", the number "21" is listed next to that response. In the "Computing Issues" section, we listed the actual number of responses to questions about computer usage and training (items 86 - 106).

The "Enterprise Management" section was intended to test the knowledge of the DRMS staff about the new EM structure, policies, and processes. As such, these questions included both true and false statements. In the copy of the survey attached, the **TRUE** statements are shown in **bold**. On the summary statistics report, the true statements are shown in reverse, i.e., white text on black background. The total number of surveys processed for each category is listed in the N column next to questions 1, 4, and 39.

It is important to note that these summary statements might also reflect our project team's on-site experience at DRMS. In many cases, the survey analyses served to reinforce the impressions we developed during our time on-site.

## General Comments

Both HQ DRMS and DRMO staff were surveyed. HQ DRMS distributed 100 surveys to HQ staff members. The completed surveys were collected by HQ DRMS and returned. The CEC mailed packets to 34 selected DRMOs. These DRMOs were selected to get a range of small, medium and large sites in both the East and West regions. (International DRMOs were intentionally omitted from this effort.) These packets contained enough surveys for the DRMO chief and staff from the following job series: 1104, 1107, 028, and 029. These staff members were chosen because of their need to communicate with the Marketplace group. Each DRMO respondent received a cover letter explaining the purpose of the survey, a blank copy of the questionnaire, and a postage-paid envelope addressed to the CEC. Follow-up calls were made to each DRMO to ensure that the packets were received. Two DRMOs required a second packet.

The table below lists the response rate by the seven categories above.

HQ	All	East	West	Small	Medium	Large
58%	60%	61%	60%	64%	57%	61%

This is an excellent response rate for a survey of this type. It is important to note that those who chose to answer the questionnaire may differ significantly from those who did not, which could bias the results. In the future, special efforts to increase the response rate of such surveys should be taken to ensure that the results are indeed representative of the DRMS population.

Most of our rating scales included 5 options with the middle option (3) being either "Neither agree nor disagree", "Neither desirable or undesirable", or "Half of the time". For many of these questions, "3" was the most common choice. While this could mean that the respondent indeed had no real opinion, the middle choice is often chosen routinely as a way to quickly complete a survey. This could indicate either apathy (they didn't care or just marked the center for speed) or fear of repercussions. As we stated in the cover letter, all responses will continue to be **confidential**, with only summary data provided.

If you scan across almost most of the questions, two patterns are clear. People in small organizations consistently gave higher scores than those in medium-sized or large organizations (both DRMOs and HQ). Since our focus is on communication, this result makes sense. It is much easier to keep the lines of communication open and effective if there are fewer people participating. The other result is that on almost every question or measure (items 5 through 85), DRMOs in the East scored equal to or higher than those in the West.

There are several groups of questions about interaction groups (items 50-52), communication methods (53-56), sources of clarifying information (64-66), and the receipt (69-71) and sending of information (72-74). All of these

groups required the respondents to provide a set of numbers that totaled to 100(%). This proved problematic in many cases. In spite of their best intentions, 5-10% of the respondents could not seem to add to 100.

## Background

The summary statistics for questions 2 and 4 (tenure at the current location and current position, respectively) show significant difference between HQ and DRMO respondents. On average, DRMO respondents have worked almost twice as long at their current postings that their counterparts at headquarters and have been in their current positions almost three times as long. This could contribute to some of the frustration that DRMO staff has expressed with HQ.

## Culture

The "Culture" section of this survey was derived from an existing questionnaire. In that questionnaire, the groups of questions in this section represented different higher level *concepts*:

- Questions 5 - 12 - Teamwork
- Questions 13 - 19 - Morale
- Questions 20 - 23 - Information Flow
- Questions 24 - 27 - Involvement
- Questions 28 - 35 - Supervision
- Questions 36 - 40 - Meetings

The ratings scales are from 1-5, with 1 being the low score. With this system, higher scores are better both on individual questions and for each concept. While the concept scores are important, the answers for the individual items can help indicate specific areas for improvement. For example, answers for questions 36 through 40 can pinpoint how your staff believes meetings can best be improved.

We'll report on each concept in turn.

**Teamwork:** The items ask about honesty, problem resolution, and team interactions. Teamwork rated highest in small DRMOs, with HQ a close second. The lowest item across all seven categories, ability to accept criticism without becoming defensive (ranging from 2.4 to 2.9) is an area of concern.

**Morale:** These questions focus on working relationships, motivation, trust, and respect. Morale is very low for all categories except small DRMOs, with almost all of the six scale items scoring below three. Trust is particularly low (item 18). In a time of great change, with many people fearful for their jobs, this is understandable.

**Information Flow:** The questions on information flow are general in this section, asking about quantity, quality, and accessibility of information. (Information flow is also considered in more detail in the Organizational Communication section.) Small and medium-sized DRMOs did the best here and HQ the lowest. Given that HQ is in one location and has access to more communication technology, this low score is of concern.

**Involvement:** This concept includes both whether people can participate and if their actions are valued. Again, the overall score is below 3. While people say they may be asked for their input (items 25 and 26), they feel that their input does not count (items 27 and 28).

**Supervision:** This concept focuses on aspects for the respondents' immediate supervisor. This is the highest rated concept across just about all categories.

**Meetings:** Questions here ask about attributes of successful meetings at any organization, such as meetings stay on track, everyone participates, and decisions made at the meeting are enacted. This was lowest for HQ (2.69) and highest for small DRMOs (3.45). The question on meeting time not being well spent was the lowest item for all

categories, with HQ the lowest at 2.4 out of 5. In the field, decisions made at meetings are put into action, surely a contributing factor to the respondents overall satisfaction with the process.

## Organizational Communication

This section of the questionnaire was also based on an existing survey. While these items are not grouped into "concepts" as in the "Culture" section, there are some natural groupings. For example, items 42 - 49 focus on the respondent's relationship with their immediate supervisor. Specific concerns include retribution, advancement, and trust.

Most employees do not particularly fear retribution (item 42), which can be a good sign. Supervisors are somewhat successful when trying to help you get what you need to do your job (item 43) and you have some trust in their decisions (item 44). Managers at small and medium-sized DRMOs do best at this. People want to get promoted (items 47 and 48), but are not always sure that their supervisors can help (items 45 and 48).

It is most desirable for you to interact with your peers and your subordinates, and less so with your superiors (items 81 - 83). Who you communicate with (items 50 - 52) varies by your location. At HQ, people spend most of their time communicating with their peers (59.7%). The effect is less strong in the field, particularly at small DRMOs. Information sources (items 69 - 71) also vary by location. At HQ, people get most of their information their peers (53.6%) with superiors a distant second. At DRMOs, it is just the opposite. For almost every category, superiors provide most information with peers trailing. Your communication at work is generally either face-to-face or on the telephone (items 53-56), although written communication is used more at HQ than in the field. There is some email use, but it is not high considering how much you use your computers (see the next section). The information you get from both above and below your level is accurate and understandable more than half of the time (items 57 - 62). If you have a question (items 63 - 66) almost all of you ask it. Who you ask is basically the same as who you communicate with in general: at HQ you are most likely to ask your peers and in the field your superiors. While you like what you get, you may not be getting enough of what you need. The score on item 67 indicates that you are hindered in your job nearly half of the time by lack of information. On item 68, you said you seldom have too much information.

When you distribute information you tend to filter what you send more than half the time (items 75 - 77). Item 84 asked about whether you distort information, certainly a much stronger word than what we used in items 75 to 77 (summarizing important aspects and minimizing unimportant ones). And, when we put it this way, you said there are few forces that might cause you to distort information you send to your superiors.

Overall, you rated your communications *slightly better than neutral* (item 85). This is somewhat confusing since when most of the components were asked about separately they received higher scores. One possible explanation for this is the low morale rating. When people are asked about specific things, they can often focus on those things without being colored by broader issues, like morale. When asked a general question, like about overall communication, they relate that to "overall" issues, again like morale.

## Computing Issues

DRMS has undergone many major changes over the last few years and all of these contained a significant information technology component. The use of computers will become increasingly central to the way you do business. This includes as modes of communication. As such, we thought it was important to include in our baselining an overview of your computer access, usage, knowledge, and training.

Most of the respondents have a computer for their personal use, with their own email address and access to the Internet. People in the field are spending, on average, more than half their workday at their machine. At HQ, this number increases to 72.9%. Overall, skill level seems adequate. If many of your systems are moving to the Internet, the comparatively lower scores for Internet browsers indicates training could be useful. Most of you believe you could benefit from more training. An important area of concern is lack of training on DRMS business systems. This

has implications both in the short term, i.e., the need to provide mode training, and in the longer term are more and more of these systems are re-implemented for use on the Internet.

## Enterprise Management

Part of any change effort is building an understanding of the new structure, policies, and processes. The questions in this section were constructed by combining:

- Facts taken from newsletters, manuals, briefings, and other materials
- Popular misconceptions about the change provided by HQ DRMS staff.

These questions were placed into three categories:

- **Definitions** – These questions about the tenets of Enterprise Management are akin to your new “vision” or “mission”.
- **Mechanisms and Service Centers** – If the definitions are your new mission, these two categories represent “tactics” chosen to help you achieve that mission.

We decided to report your “scores” in several different ways. First, the summary statistics report shows the raw number of answers to each question. Items were scored with a “1” if they were checked and a “0” if they were not. The “N” listed in the first question on each page shows how many surveys were processed for each category. For example, of the 295 DRMO surveys processed, 209 respondents correctly answered that Enterprise Management is “an approach to use market forces to determine what to privatize”.

We also scored the results as a percentage, as on a test in school, from 0% to 100%. First let’s look at the scores for the different respondent groups. The table below lists the percentage of respondents in each group that scored 60% (a “D-”) or less, i.e., if the respondents were students, these numbers show the percentage of students who “failed” the Enterprise Management “exam”.

	HQ	All	East	West	Small	Medium	Large
<b>Overall</b>	60%	68%	61%	74%	66%	57%	72%
<b>Definitions</b>	48%	59%	56%	62%	53%	51%	63%
<b>Mechanisms</b>	69%	76%	73%	78%	75%	71%	77%
<b>Service Centers</b>	57%	63%	59%	67%	59%	62%	65%

These low scores force us to ask some questions about our questions.

- Are these indeed the “right” facts? If these are not right questions to ask about Enterprise Management, then the results do not mean much. As people from outside the organization, we did as much as we could to make sure we asked about things that DRMS staff at least had the chance to know. We read all of the newsletters, reviewed briefings, your external and internal Web sites, and just about anything we could get our hands on.
- Is knowledge of this information necessary for DRMS to succeed in changing to Enterprise Management? For those affected by the changes, much of this information is necessary. Even if it is necessary, however, the low scores are probably related to morale. Anecdotally this is confirmed by the people who sent us questionnaires with only one or two questions answered, or those whose chose to add written comments, most of them extremely negative.

We also did this graphically in two ways for each respondent group:

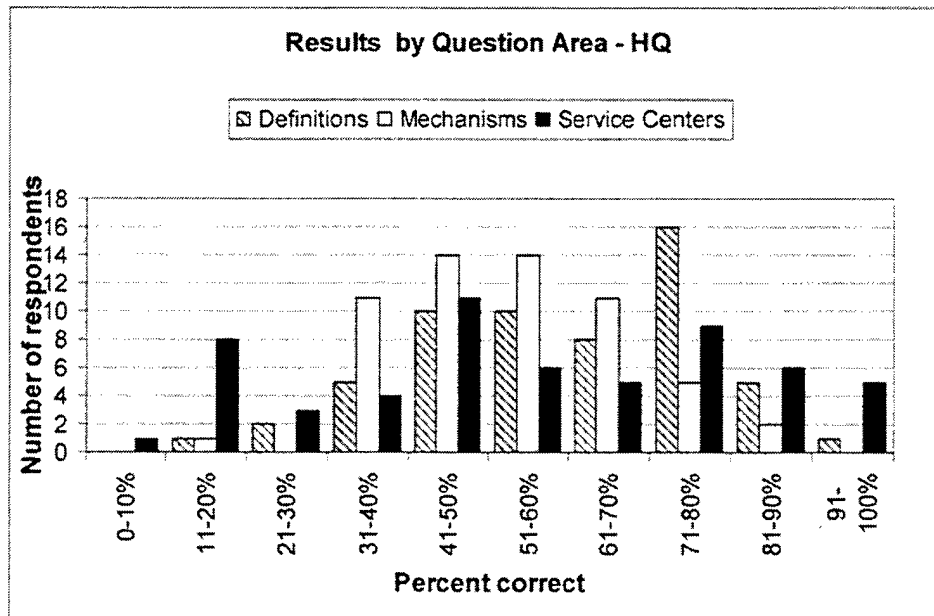
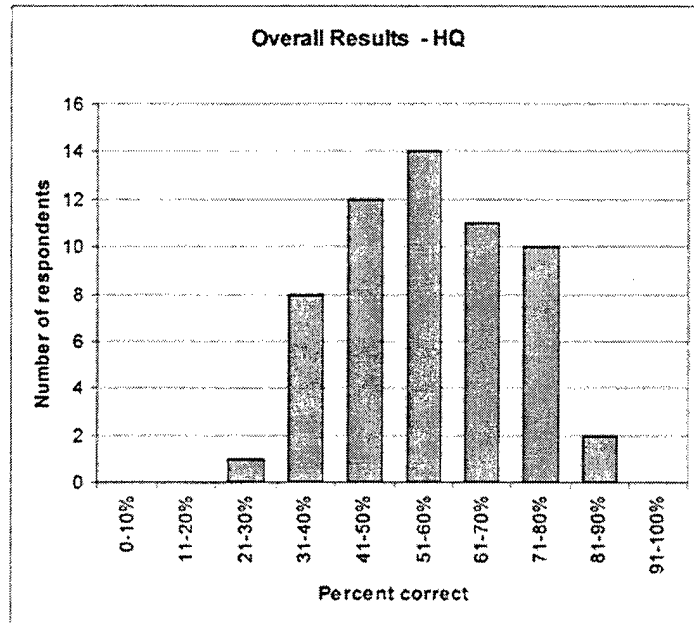
- Overall for all 51 items
- By the categories of questions in the Enterprise Management section.

## HQ Results

As we said in the previous table, 40% of HQ DRMS respondents scored 60 or below. While normally this would be a low score, this represents the best performance of any of the subgroups analyzed.

Because HQ is the source for much of this information, it makes sense that staff members there would know more about it than their peers in the field.

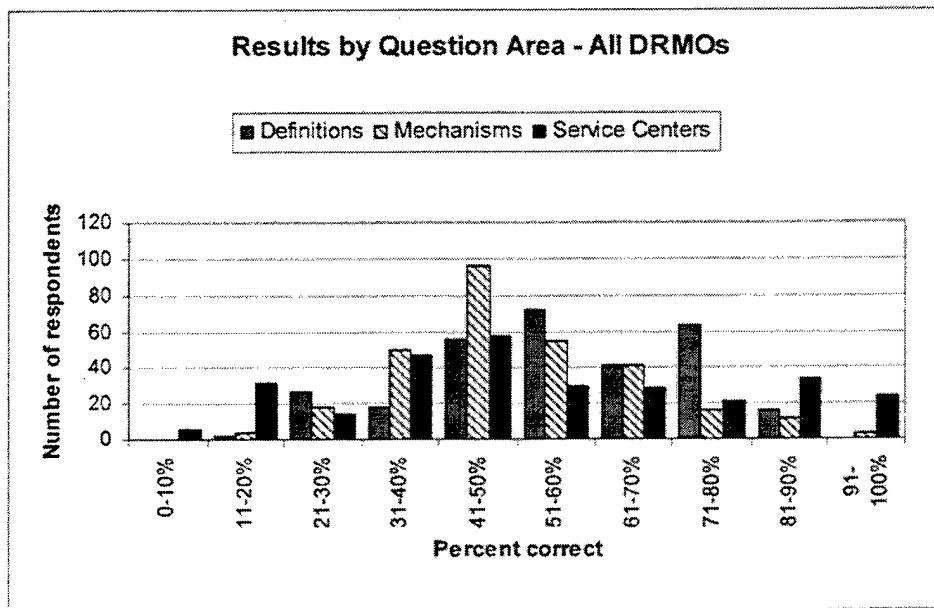
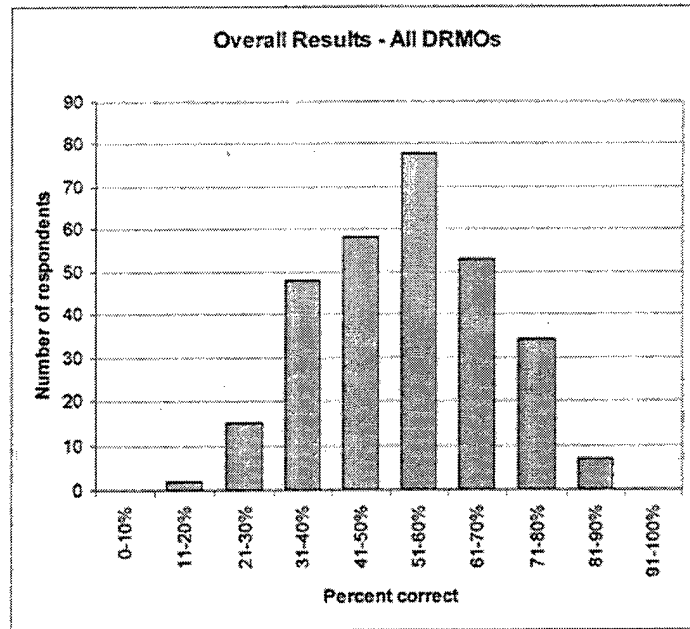
Looking at the results by question area, the HQ group did the best on definitions and worst on the mechanisms. As the group responsible for implementing many of these "tactics", this is of some concern. The low scores on the service center concept makes sense since HQ staff are the providers of the service, not the users. Only those actually involved with Service Centers may pay attention to the details.



## DRMO Results

With 68% of the respondents scoring below 60%, it is clear that DRMO staff members did not perform well on this section. Whether it is because morale is low, or they did not want to participate in yet another survey, or they just do not know the information is not clear. However, if any of these explanations are true, they all can still have the same negative effects on DRMS achieving it's Enterprise Management goals.

DRMOs scored best on the definitions but the mechanisms were not well understood. Scores on the Service Center concept were relatively flat across all respondents. Since Service Centers are an important part of making HQ more responsive to the field and helping the DRMOs be more effective, this is an important issue.

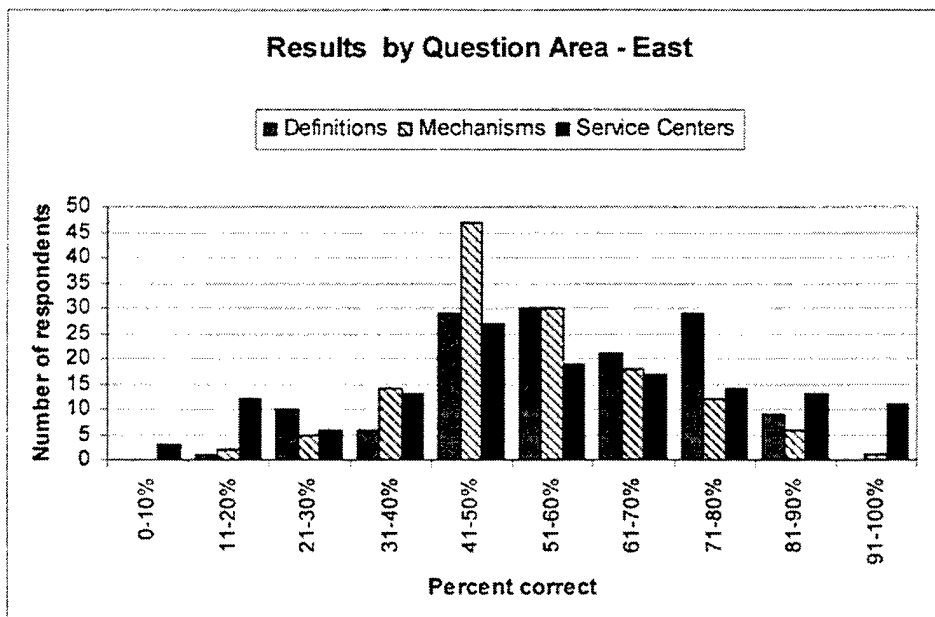
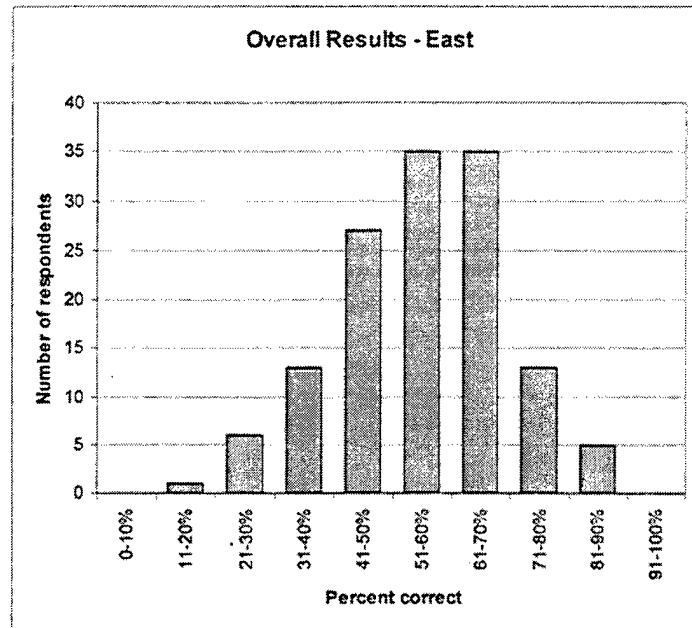




## East Region DRMOs

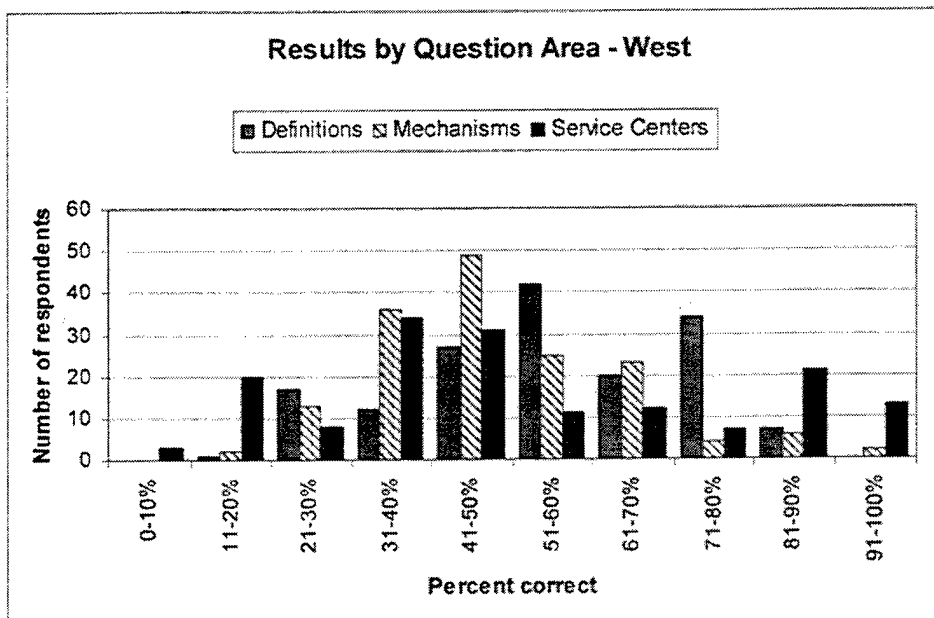
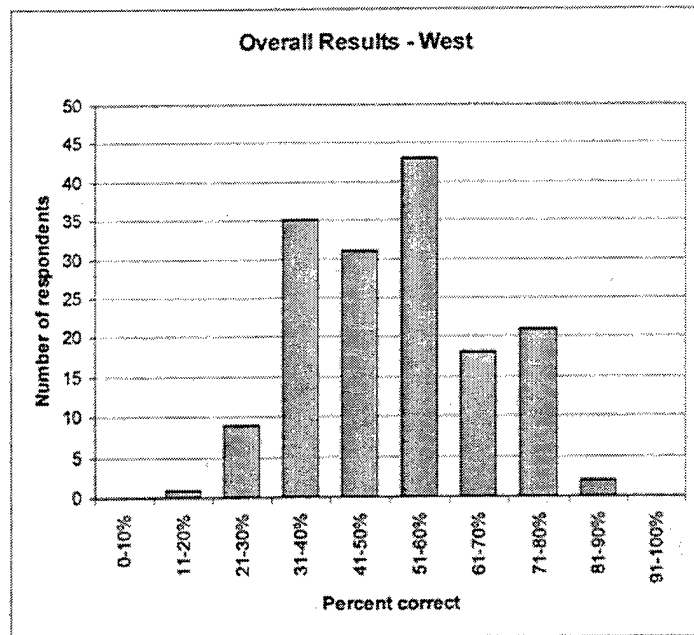
The numbers for the rest of questionnaire suggest that there is something different between DRMOs in the East vs. the West. The East had 61% score below 60, the West 74%.

If you look across the all of the summary statistics, the numbers in the East are just a little bit higher for each question area. The variation that might explain this difference in score is on questions 72 through 74. People in the East send more communication upward to their superiors than in the West. This is true although there is no real difference in how respondents in each region say they feel about their superiors.



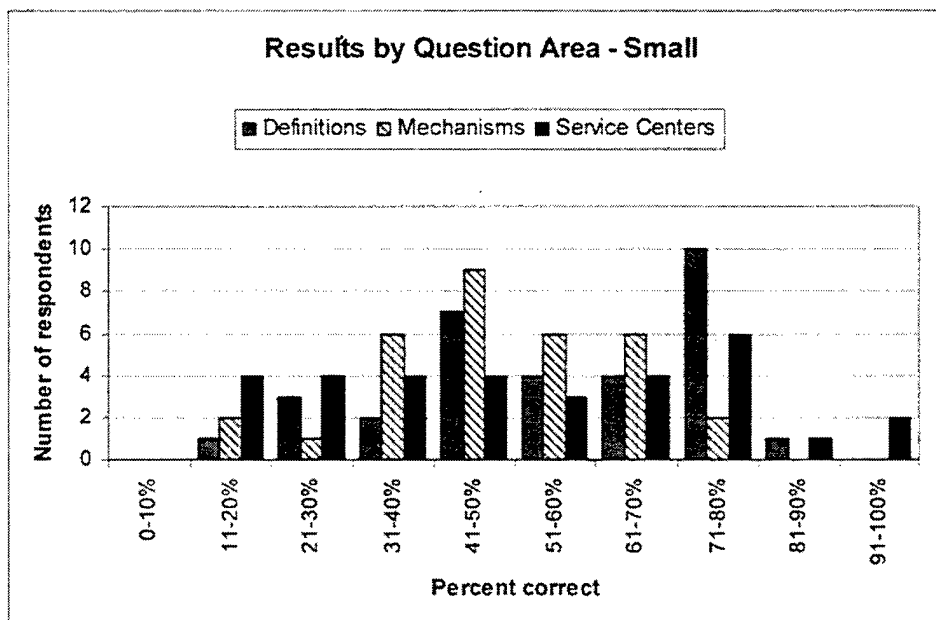
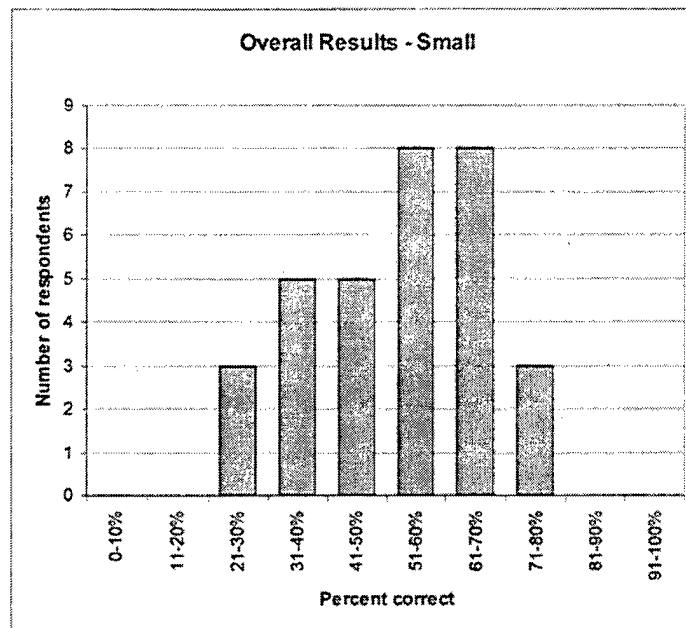
## West Region DRMOs

Respondents in the West had most scores 60 or below at 74%. They did best on the definitions, even though that was only in the 51-60% range. Again, their knowledge of Service Centers was more or less flat, an area of concern.



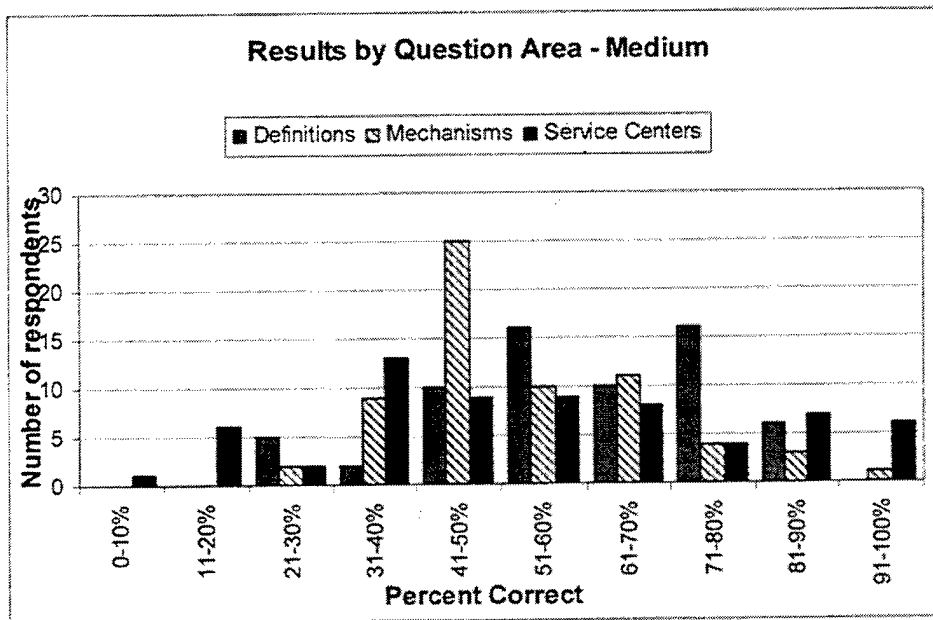
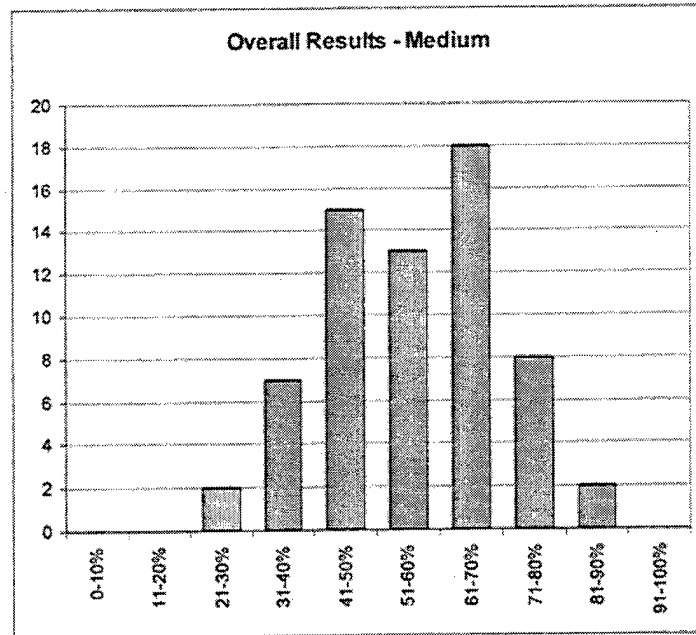
## Small DRMOs

For many things size matters and that is true also of communications. While the small DRMOs scored the best in the other areas, they were in the middle on knowledge of Enterprise Management. They scored better on Definitions and Service Centers than the other size categories. Their score on Mechanisms was almost as high as for large centers. One lesson from this is that while communication may be better overall within smaller centers, that does not carry over to communication about this particular change effort.



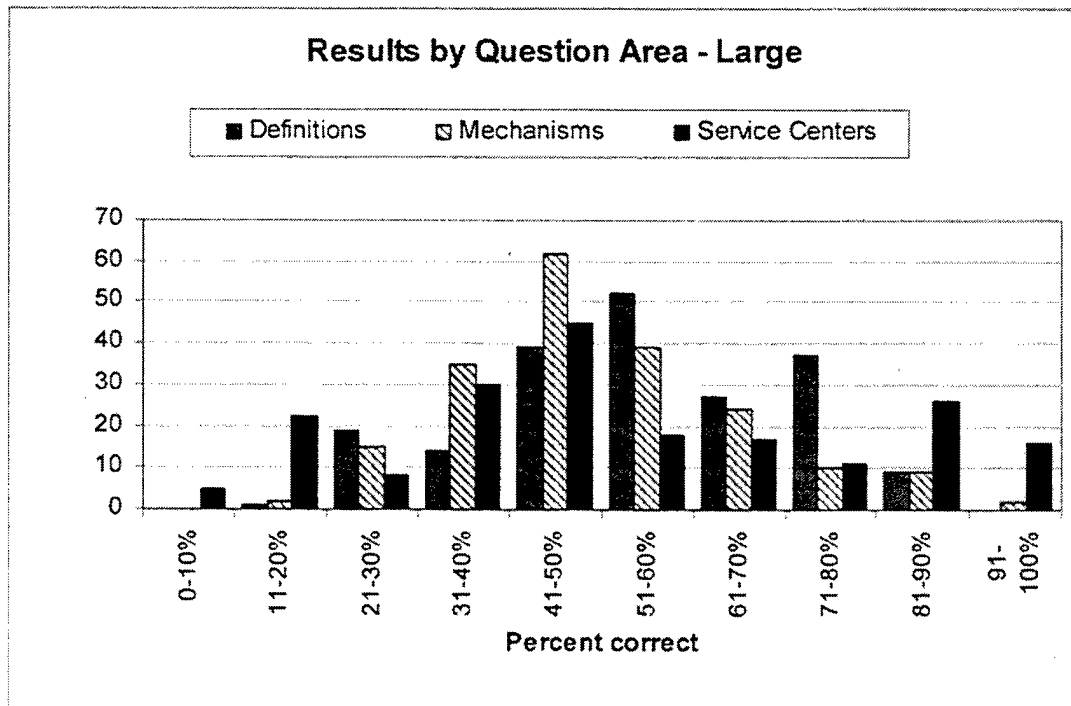
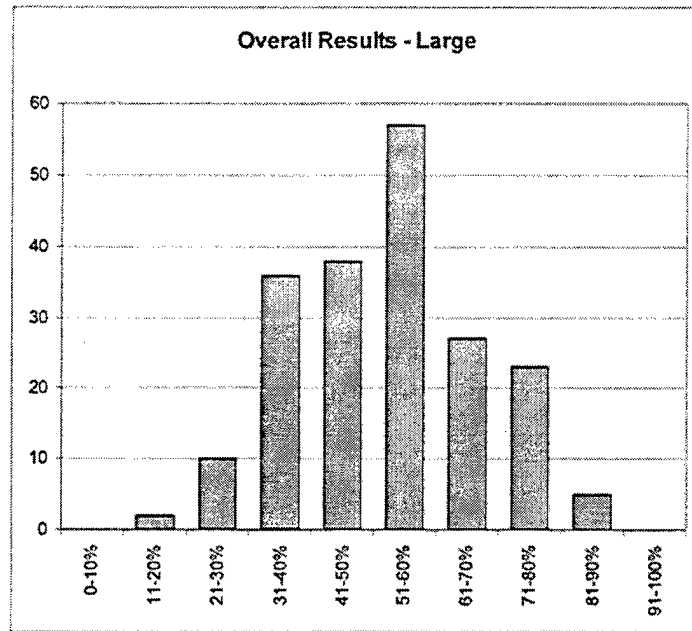
## Medium-Sized DRMOs

More respondents at medium-sized DRMOs "passed" than in the other size categories and they knew the most about definitions, the "vision/mission" of Enterprise Management. They were in the middle on Mechanisms and Service Centers.



## Large DRMOs

As was stated earlier, large DRMOs scored lower on most communication issues. Size does matter in communication. The more people in the mix, the harder it is to get the message out and to maintain clarity. This was seems to be the case for the Enterprise Management message. This group scored the lowest overall of any of the size classes. It also scored lowest in every question category. If DRMSs plan include consolidating some smaller DRMOs into the larger ones where communication is clearly ineffective, then the plans should include efforts to address these issues.



## **For More Information**

Please contact: Stanley M. Przybylinski  
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Thank you again for the time and effort you committed to this survey.

## **Appendix E.                    WR-ALC Baselineing**

This appendix contains the following documents from our baselining effort at WR-ALC:

- The WSSC baselining survey
- The F-15 survey results
- The C-141 survey results

## Communication Baselining Survey

As part of an Air Force Research Laboratory (AFRL) project, your organization has agreed to participate in the development of a process and a set of tools to rapidly assess the effectiveness of communication within organizations. The first step in looking at communication effectiveness is for our project team to develop an understanding of your organization and its current change efforts. This survey will provide data that, when analyzed, will help us develop that understanding.

All of this survey data will be processed at the Center for Electronic Commerce with only summary information reported back to your organization. All specific responses will be held in the strictest confidence. No information you provide will be attributed to its source in any reporting we do back to your organization. If you have any comments or questions, please contact us using the information below.

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or

Please complete all of the items on the following pages to the best of your ability. When you finish the survey, please return it to:

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Ann Arbor, MI 48105  
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**Email:** smp@iti.org

Thank you for your time and effort.



## Background

1. Work location  
☐ F-15 WSSC.<sub>1</sub>  
☐ C-141 WSSC.<sub>2</sub>
2. How long have you worked at this location? \_\_\_\_\_
3. Grade \_\_\_\_\_
4. How long have you worked in your current position? \_\_\_\_\_
5. Are you a member of any type of union organization?  
☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

## Culture

While our project focuses on communication, organizational culture and communication are closely related. Many attributes of culture, such as norms and trust, directly affect how people communicate. Please answer the following questions about your organization's culture for the work location you designated above.

For the following questions, please check the box the best represents your opinion about the numbered statements:

	Strongly disagree. <sub>1</sub>	Somewhat disagree. <sub>2</sub>	Neither agree nor disagree. <sub>3</sub>	Somewhat agree. <sub>4</sub>	Strongly agree. <sub>5</sub>
6. People I work with are direct and honest with each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. People I work with accept criticism without becoming defensive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. People I work with resolve disagreements cooperatively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. People I work with function as a team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. People I work with are cooperative and considerate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. People I work with constructively confront problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. People I work with are good listeners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. People I work with are concerned about each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Labor and management have a productive working relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. This organization motivates me to put out my best efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. This organization respects its workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. This organization treats people in a consistent and fair manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Working here feels like being part of a family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. There is an atmosphere of trust in this organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. This organization motivates people to be efficient and productive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please turn to the next page.

	Strongly disagree <sub>1</sub>	Somewhat disagree <sub>2</sub>	Neither agree nor disagree <sub>3</sub>	Somewhat agree <sub>4</sub>	Strongly agree <sub>5</sub>
21. I get enough information to understand the big picture here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. When changes are made the reasons why are made clear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I know what's happening in work areas outside of my own.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I get the information I need to do my job well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I have a say in decisions that affect my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I am asked to make suggestions about how to do my job better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. This organization values the ideas of workers at every level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. My opinions count in this organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. My job requirements are made clear by my supervisor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. My supervisor tells me when I do a good job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. My supervisor takes criticism well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. My supervisor delegates responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. My supervisor is approachable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. My supervisor gives me criticism in a positive manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. My supervisor is a good listener.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. My supervisor tells me how I'm doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Decisions made at meetings get put into action.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Everyone takes part in discussions at meetings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Our discussions in meetings stay on track.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Time in meetings is time well spent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Meetings tap the creative potential of the people present.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Please turn to the next page.*

## Organizational Communication

*This is a series of questions about how people communicate at work. Imagine a typical week at work, and answer the questions accordingly. Please attempt to answer all the questions.*

42. Do you have subordinates working for you?

- ☐ Yes.<sub>1</sub>
- ☐ No.<sub>2</sub>

*Please indicate the degree of your agreement with each statement by checking the most appropriate alternative below each statement.*

43. How free do you feel to discuss with your immediate superior the problems and difficulties you have in your job without jeopardizing your position or having it "held against you" later in this organizations?

- ☐ Very cautious.<sub>1</sub>
- ☐ Somewhat cautious.<sub>2</sub>
- ☐ It depends.<sub>3</sub>
- ☐ Somewhat free.<sub>4</sub>
- ☐ Completely free.<sub>5</sub>

50. How often is your immediate superior successful in overcoming restrictions (such as regulations or quotas) in getting you the things you need in your job such as equipment, personnel, etc.?

- ☐ Never successful.<sub>1</sub>
- ☐ Very seldom successful.<sub>2</sub>
- ☐ Successful half of the time.<sub>3</sub>
- ☐ Successful most of the time.<sub>4</sub>
- ☐ Always successful.<sub>5</sub>

51. Immediate superiors at times must make decisions that seem to be against the interests of their subordinates. When this happens to you as a subordinate, how much trust do you have that your immediate superior's decision was justified by other considerations?

- ☐ No trust.<sub>1</sub>
- ☐ A little trust.<sub>2</sub>
- ☐ Trust half of the time.<sub>3</sub>
- ☐ Trust most of the time.<sub>4</sub>
- ☐ Trust all of the time.<sub>5</sub>

52. In general, how much do you feel that your immediate superior can do to further your career in this organization?

- ☐ Can do nothing.<sub>1</sub>
- ☐ Can do a little.<sub>2</sub>
- ☐ Can do a lot.<sub>3</sub>

53. How much weight would your immediate superior's recommendation have in any decision that would affect your standing in this organization, such as promotions, transfers, etc.?

- ☐ No weight.<sub>1</sub>
- ☐ A little weight.<sub>2</sub>
- ☐ A lot of weight.<sub>3</sub>

*Please turn to the next page.*

54. As part of your present job plans, how much do you want a promotion to a higher position at some point in the future?

- ☐ Content as I am.<sub>1</sub>  
☐ Somewhat want a promotion.<sub>2</sub>  
☐ Very much want a promotion.<sub>3</sub>

55. How important is it for you to progress upward?

- ☐ Not at all important.<sub>1</sub>  
☐ Somewhat important.<sub>2</sub>  
☐ Very important.<sub>3</sub>

56. To what extent do you have confidence and trust in your immediate superior regarding his/her general fairness?

- ☐ No confident and trust.<sub>1</sub>  
☐ A little confident and trust.<sub>2</sub>  
☐ Confident and trust half of the time.<sub>3</sub>  
☐ Confident and trust most of the time.<sub>4</sub>  
☐ Complete confident and trust.<sub>5</sub>

While working, what percentage of the time do you spend interacting with:

57. \_\_\_\_% Immediate Superiors?  
 58. \_\_\_\_% Subordinates?  
 59. \_\_\_\_% Peers (others at same job level)?  
 100%

Of the total time you engage in communications while on the job, about what percentage of the time do you use the following methods to communicate:

60. \_\_\_\_% Written?  
 61. \_\_\_\_% Face-to-face?  
 62. \_\_\_\_% Telephone?  
 63. \_\_\_\_% Other? (specify) \_\_\_\_\_  
 100%

How accurate is information that you receive from:

- |                                       | Never accurate. <sub>1</sub> | Inaccurate most of the time. <sub>2</sub> | Accurate half of the time. <sub>3</sub> | Accurate most of the time. <sub>4</sub> | Always accurate. <sub>5</sub> |
|---------------------------------------|------------------------------|---|---|---|-------------------------------|
| 64. Immediate superiors?              | <input type="checkbox"/>     | <input type="checkbox"/>                  | <input type="checkbox"/>                | <input type="checkbox"/>                | <input type="checkbox"/>      |
| 65. Subordinates?                     | <input type="checkbox"/>     | <input type="checkbox"/>                  | <input type="checkbox"/>                | <input type="checkbox"/>                | <input type="checkbox"/>      |
| 66. Peers (others at your job level)? | <input type="checkbox"/>     | <input type="checkbox"/>                  | <input type="checkbox"/>                | <input type="checkbox"/>                | <input type="checkbox"/>      |

How clear and understandable is information that you receive from:

- |                                       | Never clear. <sub>1</sub> | Unclear most of the time. <sub>2</sub> | Clear half of the time. <sub>3</sub> | Clear most of the time. <sub>4</sub> | Always clear. <sub>5</sub> |
|---------------------------------------|---------------------------|--|--------------------------------------|--------------------------------------|----------------------------|
| 67. Immediate superiors?              | <input type="checkbox"/>  | <input type="checkbox"/>               | <input type="checkbox"/>             | <input type="checkbox"/>             | <input type="checkbox"/>   |
| 68. Subordinates?                     | <input type="checkbox"/>  | <input type="checkbox"/>               | <input type="checkbox"/>             | <input type="checkbox"/>             | <input type="checkbox"/>   |
| 69. Peers (others at your job level)? | <input type="checkbox"/>  | <input type="checkbox"/>               | <input type="checkbox"/>             | <input type="checkbox"/>             | <input type="checkbox"/>   |

Please turn to the next page.

70. If information you receive is not clear or understandable, do you generally ask for help or clarification?

- ☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

If you answered, "No", please proceed to question 74.

Please list the sources you generally approach for clarification:

71. \_\_\_\_% Immediate Superiors?  
72. \_\_\_\_% Subordinates?  
73. \_\_\_\_% Peers (others at same job level)?  
100%

74. How often do you find that the lack of available information hinders your performance in this organization?

- ☐ Never hinders.<sub>1</sub>  
☐ Seldom hinders.<sub>2</sub>  
☐ Hinders half of the time.<sub>3</sub>  
☐ Hinders most of the time.<sub>4</sub>  
☐ Always hinders.<sub>5</sub>

75. How often do you feel that you receive more information than you can efficiently use in this organization?

- ☐ Never have too much information.<sub>1</sub>  
☐ Seldom have too much information.<sub>2</sub>  
☐ Have too much information half of the time.<sub>3</sub>  
☐ Have too much information most of the time.<sub>4</sub>  
☐ Always have too much information.<sub>5</sub>

Of the total time you spend receiving information at work, what percentage comes from:

76. \_\_\_\_% Immediate Superiors?  
77. \_\_\_\_% Subordinates?  
78. \_\_\_\_% Peers (others at same job level)?  
100%

Of the total time you spend sending information at work, what percentage goes to:

79. \_\_\_\_% Immediate Superiors?  
80. \_\_\_\_% Subordinates?  
81. \_\_\_\_% Peers (others at same job level)?  
100%

*Please turn to the next page.*

When transmitting information to others in this organization, do you summarize by emphasizing those aspects that are important and minimizing those aspects that are unimportant? How often do you do this with:

	Never <sub>1</sub>	Seldom <sub>2</sub>	Half of the time <sub>3</sub>	Most of the time <sub>4</sub>	Always <sub>5</sub>
82. Immediate superiors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
83. Subordinates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
84. Peers (others at your job level)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Of the total amount of information you receive at work, how much do you pass on to:

	None <sub>1</sub>	Some <sub>2</sub>	Half <sub>3</sub>	Most <sub>4</sub>	All <sub>5</sub>
85. Immediate superiors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
86. Subordinates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
87. Peers (others at your job level)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How desirable do you feel it is in your department to interact frequently with:

	Very undesirable <sub>1</sub>	Somewhat undesirable <sub>2</sub>	Neither desirable or undesirable <sub>3</sub>	Somewhat desirable <sub>4</sub>	Very desirable <sub>5</sub>
88. Immediate superiors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
89. Subordinates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90. Peers (others at your job level)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

91. Are there forces that cause you to distort information that you send upward in this organization? *Please check one.*

- ☐ There are no forces.<sub>1</sub>
- ☐ There are very few forces.<sub>2</sub>
- ☐ There are lots of forces.<sub>3</sub>

92. Put check the box next to the expression that best represent how you feel about communications in general, including the amount of information you receive, interaction with your immediate superior and others, the accuracy of information available, etc. *Please check one.*

- ☐ Very positive.<sub>1</sub>
- ☐ Positive.<sub>2</sub>
- ☐ Neutral.<sub>3</sub>
- ☐ Negative.<sub>4</sub>
- ☐ Very negative.<sub>5</sub>

*Please turn to the next page.*

## Computing Issues

Many of the changes to the business processes within your organization will require you to use computers more as part of your daily work. Much of this work involves communication of one form or another. Please answer the following questions about your computer usage.

93. Do you have access to a computer?

- ☐ Yes, I have one for my personal use.<sub>1</sub>  
☐ Yes, I share one with one or more co-workers.<sub>2</sub>  
☐ No.<sub>3</sub>

If you answered "No", please proceed to the next page.

94. What percentage of your workday would you estimate that you spend using your computer? \_\_\_\_%

95. Does this computer provide access to the Internet?

- ☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

96. Do you have your own electronic mail address at work?

- ☐ Yes.<sub>1</sub>  
☐ No.<sub>2</sub>

In the next few questions we would like you to assess your skill at using different types of computer applications as part of your day-to-day work:

- Applications programs like Microsoft Word, Microsoft Excel, Microsoft PowerPoint, etc.
- Electronic mail programs like Microsoft Outlook, Eudora, cc: Mail, etc.
- Internet browsers like Netscape, Internet Explorer, etc.
- Legacy systems like PDMSS, DO35A/C/K, EPA, G037E/F, etc.

If you do not normally use that type of application at work, please check "Do Not Use".

	Expert. <sub>1</sub>	Intermediate. <sub>2</sub>	Average. <sub>3</sub>	Novice. <sub>4</sub>	Do Not Use. <sub>5</sub>
97. Applications program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
98. Electronic mail programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99. Internet browsers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100. Legacy systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For these same types of computer applications we'd like you to assess the level of training you have received to date:

	More than enough. <sub>1</sub>	Enough. <sub>2</sub>	Not enough. <sub>3</sub>	None. <sub>4</sub>	Do Not Use. <sub>5</sub>
101. Applications program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102. Electronic mail programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103. Internet browsers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104. Legacy systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please turn to the next page.

## Weapons System Support Center (WSSC)

The following questions are intended to gauge your understanding of the principles of the Aircraft Repair Enhancement Program (AREP) and the operations of the Weapons System Support Center (WSSC). New policies, procedures, and processes are being put into place. We are interested in your understanding of how things should work in the new AREP process, not how they may still work now.

Please complete all items.

### WSSC

The goal of AREP is:

Please check all that apply

- |   |                          |
|---|--------------------------|
| 1. To privatize the supply support function of Aircraft PDM.  | <input type="checkbox"/> |
| 2. Solely to improve the flow of materiel to the aircraft utilizing the WSSC.   | <input type="checkbox"/> |
| 3. To fully synchronize materiel, equipment, manpower, and facilities to the aircraft per the operation-level schedule. | <input type="checkbox"/> |

"Aircraft management" implements an automated, tail-number specific, aircraft production, operation level schedule. This information is made available to: Please check all that apply.

- |                                       |                          |
|---------------------------------------|--------------------------|
| 4. The industrial back shops.         | <input type="checkbox"/> |
| 5. HQ AFMC.                           | <input type="checkbox"/> |
| 6. Management only                    | <input type="checkbox"/> |
| 7. All support functions in the WSSC. | <input type="checkbox"/> |
| 8. WR-ALC/RE.                         | <input type="checkbox"/> |

The following functions are provided by the WSSC: Please check all that apply.

- |                                       |                          |
|---------------------------------------|--------------------------|
| 9. Workload supportability            | <input type="checkbox"/> |
| 10. Materiel requisition              | <input type="checkbox"/> |
| 11. Materiel storage and distribution | <input type="checkbox"/> |
| 12. Materiel management               | <input type="checkbox"/> |
| 13. Procedures and analysis           | <input type="checkbox"/> |

The logistics support variables (materiel, tools, special equipment, HAZMAT, personal protective clothing, routed and ROM items) required at the tail of the aircraft will be managed by: Please check all that apply.

- |   |                          |
|---|--------------------------|
| 14. WSSC Chief.                             | <input type="checkbox"/> |
| 15. The aircraft synchronization manager.   | <input type="checkbox"/> |
| 16. An engineer.                            | <input type="checkbox"/> |
| 17. The aircraft manager.                   | <input type="checkbox"/> |
| 18. An Aircraft Logistics Specialist (ALS). | <input type="checkbox"/> |

Please turn the page.



## METRICS

Both aircraft labor and logistic support staff will be measured by their ability to accomplish tasks in accordance with the timing prescribed by: *Please check all that apply.*

- 19. 1<sup>st</sup> line manager. ☐
- 20. The Fixer. ☐
- 21. The aircraft production schedule. ☐
- 22. The customer. ☐

Delays to schedule will be a major measurement for both the Aircraft Repair Enhancement Program (AREP) and DREP which, when tracked to its sources, will allow for: *Please check all that apply.*

- 23. Continuous improvement in schedule accomplishment. ☐
- 24. Identification of the offending staff. ☐

WSSC Performance Metrics include: *Please check all that apply.*

- 25. Mechanic delays due to parts, tools, engineering and CANNs ☐
- 26. Unsupportable AFMC 173 work cards issued to the mechanic ☐
- 27. Unpredictable repairs scheduled without time or funds ☐
- 28. Bill of Materiel accuracy ☐
- 29. 100% complete operational kits ☐
- 30. Planned vs. unplanned parts ☐
- 31. PSI Turnover (Y and Pseudo MIC) ☐

Customer Metrics include all of the following: *Please check all that apply.*

- 32. Completion of aircraft on time IAW promised delivery date ☐
- 33. Cost of PDM/UDLM/MOD ☐
- 34. Quality of repair ☐
- 35. Increased aircraft available for missions. ☐

*For the following questions, please check "True" if you believe that the statement applies to how the new AREP and WSSC processes are supposed to work, not how they might work now. Please complete all items.*

- 36. HQ has approved the new AREP/WSSC related Position Descriptions. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
- 37. The yearly reviews of persons in the WSSC have changed to fit the new positions. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐

*Please turn the page.*

## PROCESS

38. Under the WSSC, the ALS, not the first line supervisor, manages people on the aircraft. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
39. The tail team comprised of the A/C Production First Line, ALS, Planner, and FLS, meet regularly to discuss each A/C's status. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
40. Tail team meetings are only held when the aircraft is behind schedule. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
41. Clean Bills of Material (BOMs) for supportability activities, from requirement birth in the System Planning Office (SPO), until variables are made available at the aircraft are a must. To this end, planning and supply activities must be highly integrated "from SPO to Go". True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
42. The Forward Support Area (FSA) is a geographic extension of the WSSC to a hangar or ramp, where the aircraft are being repaired. It is the single interface point to the mechanic for all services and materiel, parts, special equipment, special tools, and hazardous materiel, which flow to the aircraft. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
43. The central system for AREP will be that in which the Production Schedule is planned and executed...AREP currently employs the Programmed Depot Maintenance Scheduling System (PDMSS, DSD G097) as it's "central" information system. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
44. The heart of the scheduling system is the Critical Path Network. The network is the work plan by operation/task-level for the project (i.e., aircraft tail number). All resources (parts, tools, skills, equipment, etc.) are tied to the network. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
45. Once a critical path network is built for a specific aircraft it never changes. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
46. It does not really matter when the materiel arrives at the aircraft, as long as it gets there in time to be installed before Functional Test. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐

## SYNC TEAM

47. A Synchronization Team ("sync team") will be made up of the competing customer representatives and the back-shop SSC to work the "hot" aircraft priorities from a center perspective when conflicting demands for back-shop capacity exist. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
48. The Sync team's focus is on the aircraft tail number schedule, the required delivery date (RDD) of a given operation, and the back-shops' expected delivery date (EDD). True.<sub>1</sub> ☐ False.<sub>2</sub> ☐
49. When there are several customers with hot aircraft competing for backshop services, the priority will go to whoever has the most seniority. True.<sub>1</sub> ☐ False.<sub>2</sub> ☐

*Thank you for your time and effort.*

# Communication Baseline Survey Results:

## F-15 Weapon System Support Center (WSSC)

ERIM  
Center for Electronic Commerce  
28 June, 1999

The Center for Electronic Commerce recently administered a survey to members of the F-15 WSSC. The survey consisted of questions about culture, communication, computing issues, and the implementation of the WSSC structure and processes. The data collected will serve to provide a baseline about current knowledge and communications practices as part of a pilot program funded by the Air Force Research Laboratory (AFRL/HESS) and WR-ALC/RE. We would like to thank the WSSC chief and our respondents for all of their time and effort.

### Interpreting the Results

After a section with "General Comments", the sections of this summary match the section headings of the baselining questionnaire. In some cases questions may seem to apply to more than one heading. For example, there are some questions under the heading of "Organizational Communication" that are related to culture. For the purposes of this summary, the analysis of all questions will occur under the headings in the original survey.

We revised a copy of the original survey to report the summary statistics. The number value assigned to each answer is shown in small type next to the question. For example, in question 6, someone checking the box showing that they "somewhat agree" would be assigned the value "4" for that answer. (**This is NOT included in this Appendix.**)

The summary statistics for each question are shown next to the question. The letter N represents the number of usable responses we received for that item. Next to that number we show the mean (or arithmetic average) of the responses to that question. In some cases, several items are also combined to create a score for some attribute of your organization, such teamwork and information flow.

For most of the "Yes/No" questions we included the actual number of responses, i.e., if 21 people answered a question "Yes", the number "21" is listed next to that response. In the "Computing Issues" section we listed the actual number of responses to questions about computer usage and training (items 91 - 98).

The "Weapon System Support Center" section was intended to test the knowledge of the WSSC staff about the new WSSC structure, policies, and processes. As such, these questions included both true and false statements. In the copy of the survey where the data are presented, the **TRUE** statements are shown in **bold**.

It is important to note that these summary statements might also reflect our project team's on-site experience at WR-ALC and your directorate. In many cases, the survey analyses served to reinforce the impressions we developed during our considerable time on-site.

### General Comments

WSSC management distributed 80 surveys to staff members. Each respondent received a cover letter explaining the purpose of the survey, a blank copy of the questionnaire, and a postage-paid envelope addressed to the CEC.

We received 25 usable responses, for a response rate of 31%. This is a reasonable response rate for a survey of this type. It is important to note that those who choose to answer the questionnaire may differ significantly from those who did not, which could bias the results. In the future, special efforts to increase the response rate of such surveys should be taken to ensure that the results are indeed representative of the WSSC population.

Most of our rating scales included 5 options with the middle option (3) being either "Neither agree nor disagree", "Neither desirable or undesirable", or "Half of the time". For many of these questions, "3" was the most common choice. While this could mean that the respondent indeed had no real opinion, the middle choice is often chosen routinely as a way to quickly complete a survey. This could indicate either apathy (they didn't care or just marked the center for speed) or fear of repercussions. As we stated in the cover letter, all responses will continue to be **confidential**, with only summary data provided.

## Background

We clearly did not phrase Questions 2 and 4 correctly. Since the WSSC is a new organization, many staff members are in new positions, with those jobs having been created in the last few years. The data do clearly show that the respondents are mostly non-union employees.

## Culture

The "Culture" section of this survey was derived from an existing questionnaire. In that questionnaire, the groups of questions in this section represented different higher level *concepts*:

- Questions 6 - 13 - Teamwork
- Questions 14 - 20 - Morale
- Questions 21 - 24 - Information Flow
- Questions 25 - 28 - Involvement
- Questions 29 - 36 - Supervision
- Questions 37 - 41 - Meetings

The ratings scales are from 1-5, with 1 being the low score. With this system, higher scores are better both on individual questions and each concept. While the concept scores are important, the answers for the individual items can help indicate specific areas for improvement. For example, answers for questions 37 through 41 can pinpoint how your staff believes meetings can best be improved.

We'll report on each concept in turn.

**Teamwork:** The items ask about honesty, problem resolution, and team interactions. A score of 3.2 is low here. The lowest item, ability to accept criticism without becoming defensive (2.6), is an area of concern.

**Morale:** These questions focus on working relationships, motivation, trust, and respect. Morale is low (2.8), with four out of the six scale items scoring below 3. Motivation and respect are the only items above 3.

**Information Flow:** The questions on information flow are general in this section, asking about quantity, quality, and accessibility of information. (Information flow is also considered in more detail in the Organizational Communication section.) While most of the ratings were middle of the road, people clearly do not feel as if they understand why specific processes are being implemented as the solution (2.2 on item 22).

**Involvement:** This concept includes both whether people can participate and if their actions are valued. While people say they are asked for their input (items 25 and 26), they feel that their input does not count (items 27 and 28).

**Supervision:** This concept focuses on aspects for the respondents' immediate supervisor. This is the highest rated concept (3.5), with the only reservations being that workers would like work requirements made more clear (item 29) and that more feedback is desired (30, 36).

**Meetings:** Questions here ask about attributes of successful meetings at any organization such as meetings stay on track, everyone participates, and decisions made at the meeting are enacted. This was the *lowest scoring concept*

(2.6), with all but one item below 3. Meeting time is not seen as being well spent and decisions that are made are not put into action.

## Organizational Communication

This section of the questionnaire was also based on an existing survey. While these items are not grouped into "concepts" as in the "Culture" section, there are some natural groupings. For example, items 43-50 focus on the respondent's relationship with their immediate supervisor. Specific concerns include retribution, advancement, and trust.

Employees indicated that they do not always feel free to discuss problems with their supervisor (item 43). These same supervisors bat about .500 when trying to help you get what you need to do your job (item 44) and with your trust in their decisions (item 45). People say they want to get promoted (items 48 and 49), but feel that their supervisors can't really help (items 46 and 47).

It is most desirable for you to interact with your peers, less so with your subordinates and superiors (items 82-84). You spend most of your communication time interacting with your peers (68% in item 53.) You get 51% of your information from peers, with superiors a distant second at 30% (items 70-72). Your communication at work is generally either face-to-face or on the phone (items 54-57). There is some email use, but it is not really high considering how much you use your computers (see the next section). The information you get from both above and below your level is accurate and understandable much of the time (items 58-63). If you have a question you ask it, of peers 46% of the time and superiors 42% (items 64-67). While you like what you get, you may not be getting enough of what you need. The score on item 68 indicates that you are hindered in your job nearly half of the time by lack of information. In item 69 you said you seldom have too much information.

When you are distributing information you tend to filter what you send (items 76-78) and send more to your peers than to your supervisors or subordinates. Item 85 asked about whether you distort information, certainly a much stronger word than what we used in items 76 to 78 (summarizing important aspects and minimizing unimportant ones). And, when we put it this way, you said there are few forces that might cause you to distort information you send to your superiors.

Overall, you rated your communications only *slightly better than neutral* (item 86). Since much of what you do requires effective communication, this is a low score.

## Computing Issues

WR-ALC has undergone many major changes over the last few years and all of the contained a significant information technology component. The use of computers will become increasingly central to the way you do business. This includes as modes of communication. As such, we thought it was important to include in our baselining an overview of your computer access, usage, knowledge, and training.

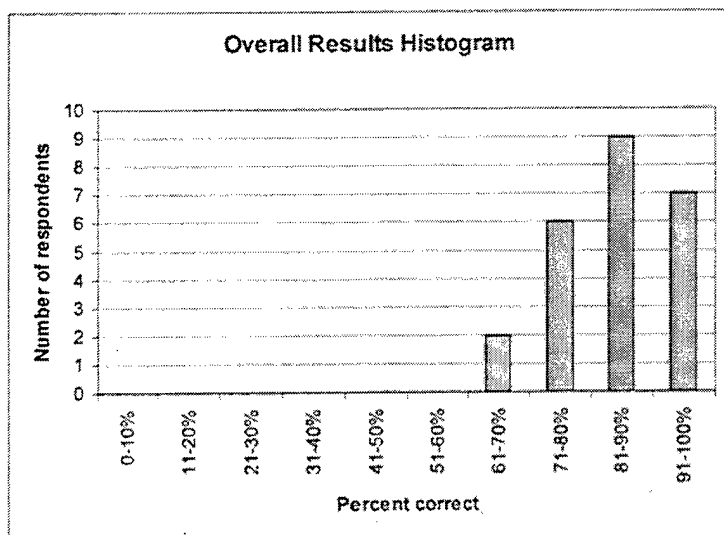
Most of the respondents have a computer for their personal use, with their own email address and access to the Internet. They are spending more than half their workday, 63%, at their machines. Overall skill level seems adequate, but most of you believe you could benefit from more training.

## Weapon System Support Center (WSSC)

Part of any change effort is building an understanding of the new structure, policies, and processes. The questions in this section were constructed by combining:

- Facts taken from policy manuals, briefings, and other materials with
- Popular misconceptions about the change provided by WSSC staff.

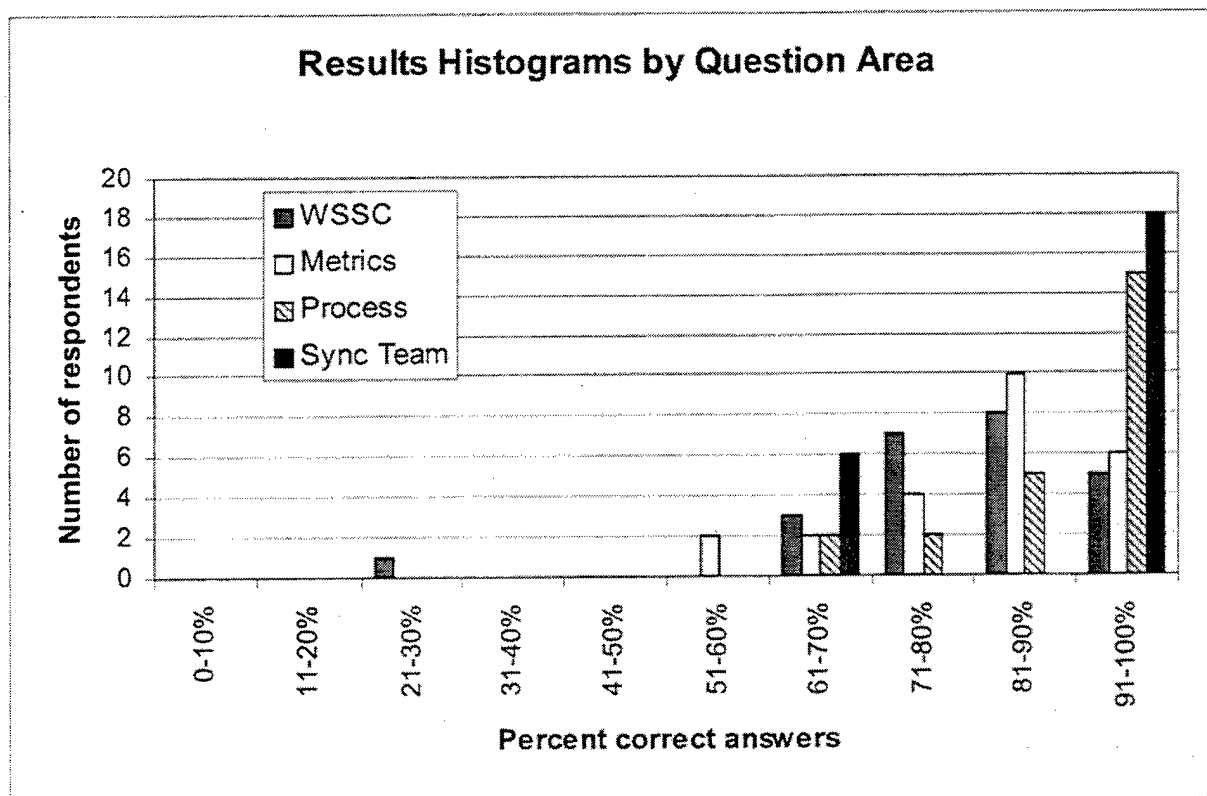
We decided to report your "scores" in several different ways. All are based on a percentage, as on a test in school, from 0% to 100%. First is an overall score for the "class", the whole WSSC.



Overall, the respondent's scored 84%, an excellent result. To see what aspects of the change to the WSSC structure might be more troublesome, we broke out the scores by question groups on the survey.

- WSSC: Questions 1-18
- Metrics: 19-37
- Process: 38-46
- Sync Team: 47-49

By looking at these groupings you can get an idea about the aspects of the WSSC change on which staff members are not yet clear.



Questions of metrics and process caused the respondents the most trouble, if you can call B's and C's real trouble. Based on these results, broad-based knowledge of the change to the WSSC structure and processes is not a problem for the F-15 WSSC.

## For More Information

Please contact: Stanley M. Przybylinski  
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**Phone:** (734) 769-4517  
**FAX:** (734) 213-3405  
**Email:** [smp@erim.org](mailto:smp@erim.org)

Thank you again for the time and effort you committed to this survey.

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# Communication Baseline Survey Results:

## C-141 Weapon System Support Center (WSSC)

ERIM  
Center for Electronic Commerce  
28 June, 1999

The Center for Electronic Commerce recently administered a survey to members of the C-141 WSSC. The survey consisted of questions about culture, communication, computing issues, and the implementation of the WSSC structure and processes. The data collected will serve to provide a baseline about current knowledge and communications practices as part of a pilot program funded by the Air Force Research Laboratory (AFRL/HESS) and WR-ALC/RE. We would like to thank the WSSC chief and our respondents for all of their time and effort.

### Interpreting the Results

After a section with "General Comments", the sections of this summary match the section headings of the baselining questionnaire. In some cases questions may seem to apply to more than one heading. For example, there are some questions under the heading of "Organizational Communication" that are related to culture. For the purposes of this summary, the analysis of all questions will occur under the headings in the original survey.

We revised a copy of the original survey to report the summary statistics. The number value assigned to each answer is shown in small type next to the question. For example, in question 6, someone checking the box showing that they "somewhat agree" would be assigned the value "4" for that answer. (**This is NOT included in this Appendix.**)

The summary statistics for each question are shown next to the question. The letter N represents the number of usable responses we received for that item. Next to that number we show the mean (or arithmetic average) of the responses to that question. In some cases, several items are also combined to create a score for some attribute of your organization, such teamwork and information flow.

For most of the "Yes/No" questions we included the actual number of responses, i.e., if 21 people answered a question "Yes", the number "21" is listed next to that response. In the "Computing Issues" section we listed the actual number of responses to questions about computer usage and training (items 91 - 98).

The "Weapon System Support Center" section was intended to test the knowledge of the WSSC staff about the new WSSC structure, policies, and processes. As such, these questions included both true and false statements. In the copy of the survey where the data are presented, the **TRUE** statements are shown in **bold**.

It is important to note that these summary statements might also reflect our project team's on-site experience at WR-ALC and your directorate. In many cases, the survey analyses served to reinforce the impressions we developed during our considerable time on-site.

### General Comments

WSSC management distributed 96 surveys to staff members. Each respondent received a cover letter explaining the purpose of the survey, a blank copy of the questionnaire, and a postage-paid envelope addressed to the CEC.

We received 29 usable responses, for a response rate of 30%. This is a reasonable response rate for a survey of this type. It is important to note that those who choose to answer the questionnaire may differ significantly from those

who did not, which could bias the results. In the future, special efforts to increase the response rate of such surveys should be taken to ensure that the results are indeed representative of the WSSC population.

Most of our rating scales included 5 options with the middle option (3) being either "Neither agree nor disagree", "Neither desirable or undesirable", or "Half of the time". For many of these questions, "3" was the most common choice. While this could mean that the respondent indeed had no real opinion, the middle choice is often chosen routinely as a way to quickly complete a survey. This could indicate either apathy (they didn't care or just marked the center for speed) or fear of repercussions. As we stated in the cover letter, all responses will continue to be **confidential**, with only summary data provided.

## Background

We clearly did not phrase Questions 2 and 4 correctly. Since the WSSC is a new organization, many staff members are in new positions, with those jobs having been created in the last few years. The data do clearly show that the respondents are mostly non-union employees.

## Culture

The "Culture" section of this survey was derived from an existing questionnaire. In that questionnaire, the groups of questions in this section represented different higher level *concepts*:

- Questions 6 - 13 - Teamwork
- Questions 14 - 20 - Morale
- Questions 21 - 24 - Information Flow
- Questions 25 - 28 - Involvement
- Questions 29 - 36 - Supervision
- Questions 37 - 41 - Meetings

The ratings scales are from 1-5, with 1 being the low score. With this system, higher scores are better both on individual questions and for each concept. While the concept scores are important, the answers for the individual items can help indicate specific areas for improvement. For example, answers for questions 37 through 41 can pinpoint how your staff believes meetings can best be improved.

We'll report on each concept in turn.

**Teamwork:** The items ask about honesty, problem resolution, and team interactions. A score of 2.9 is very low here. The lowest item, ability to accept criticism without becoming defensive (2.2), is an area of concern.

**Morale:** These questions focus on working relationships, motivation, trust, and respect. Morale is very low (2.1), with all of the six scale items scoring below 3. Trust is particularly low (item 19 - 1.9 out of 5).

**Information Flow:** The questions on information flow are general in this section, asking about quantity, quality, and accessibility of information. (Information flow is also considered in more detail in the Organizational Communication section.) Overall information flow scored a 2.4 out of 5. The lowest score, 1.7, reflected the respondents belief that that the reasons that specific changes are being made are not made clear.

**Involvement:** This concept includes both whether people can participate and if their actions are valued. Again, the overall score is below 3. While people say they may be asked for their input (items 25 and 26), they feel that their input does not count (items 27 and 28).

**Supervision:** This concept focuses on aspects for the respondents' immediate supervisor. This is the highest rated concept (3.6). This result is somewhat confusing given the low scores on the other concepts. People could fear retribution as a result of a low score.

**Meetings:** Questions here ask about attributes of successful meetings at any organization, such as meetings stay on track, everyone participates, and decisions made at the meeting are enacted. This was low (2.6), with all items below 3. Meeting time is not seen as being well spent and decisions that are made are not put into action.

## Organizational Communication

This section of the questionnaire was also based on an existing survey. While these items are not grouped into "concepts" as in the "Culture" section, there are some natural groupings. For example, items 43-50 focus on the respondent's relationship with their immediate supervisor. Specific concerns include retribution, advancement, and trust.

Employees indicated that they are cautious about discussing problems with their supervisors (item 43). These same supervisors are seldom successful when trying to help you get what you need to do your job (item 44) and you have little trust in their decisions (item 45). People are middle of the road about getting promoted (items 48 and 49), but feel that their supervisors can't help (items 46 and 47).

It is most desirable for you to interact with your peers, less so with your subordinates and superiors (items 82-84). You spend most of your communication time interacting with your peers (66% in item 53.) You get 57% of your information from peers, with superiors a distant second at 26% (items 70-72). Your communication at work is generally either face-to-face (47%) or on the phone (32) (items 54-57). There is some email use, but it is not really high considering how much you use your computers (see the next section). The information you get from both above and below your level is accurate and understandable more than half of the time (items 58-63). If you have a question almost all of you ask it, of peers 52% of the time and superiors 40% (items 64-67). While you like what you get, you may not be getting enough of what you need. The score on item 68 indicates that you are hindered in your job nearly half of the time by lack of information. In item 69 you said you seldom have too much information.

When you distribute information you tend to filter what you send more than half the time (items 76-78) and send more to your peers and subordinates than to your supervisors. Item 85 asked about whether you distort information, certainly a much stronger word than what we used in items 76 to 78 (summarizing important aspects and minimizing unimportant ones). And, when we put it this way, you said there are few forces that might cause you to distort information you send to your superiors.

Overall, you rated your communications *slightly worse than neutral* (item 86). Since much of what you do requires effective communication, this is a low score.

## Computing Issues

WR-ALC has undergone many major changes over the last few years and all of the contained a significant information technology component. The use of computers will become increasingly central to the way you do business. This includes as modes of communication. As such, we thought it was important to include in our baselining an overview of your computer access, usage, knowledge, and training.

Most of the respondents have a computer for their personal use, with their own email address and access to the Internet. They are spending more than half their workday, 58%, at their machine. Overall skill level seems adequate, but most of you believe you could benefit from more training.

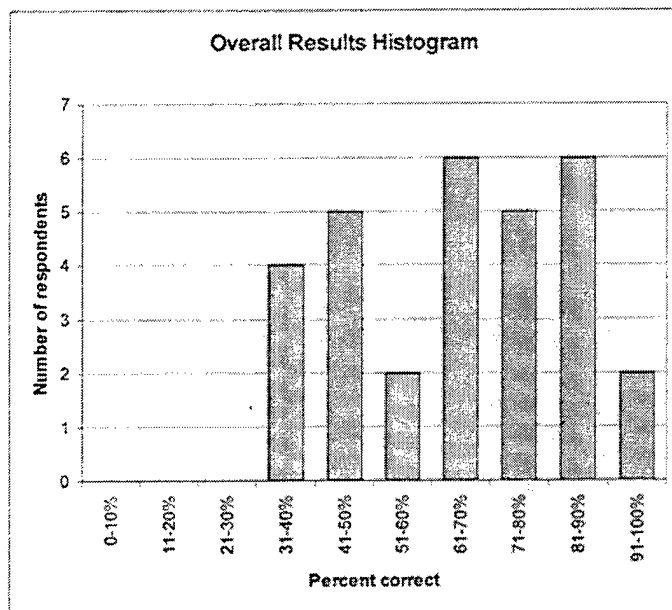
## Weapon System Support Center (WSSC)

Part of any change effort is building an understanding of the new structure, policies, and processes. The questions in this section were constructed by combining:

- Facts taken from policy manuals, briefings, and other materials with

- Popular misconceptions about the change provided by WSSC staff.

We decided to report your “scores” in several different ways. All are based on a percentage, as on a test in school, from 0% to 100%. First is an overall score for the “class”, the whole WSSC.

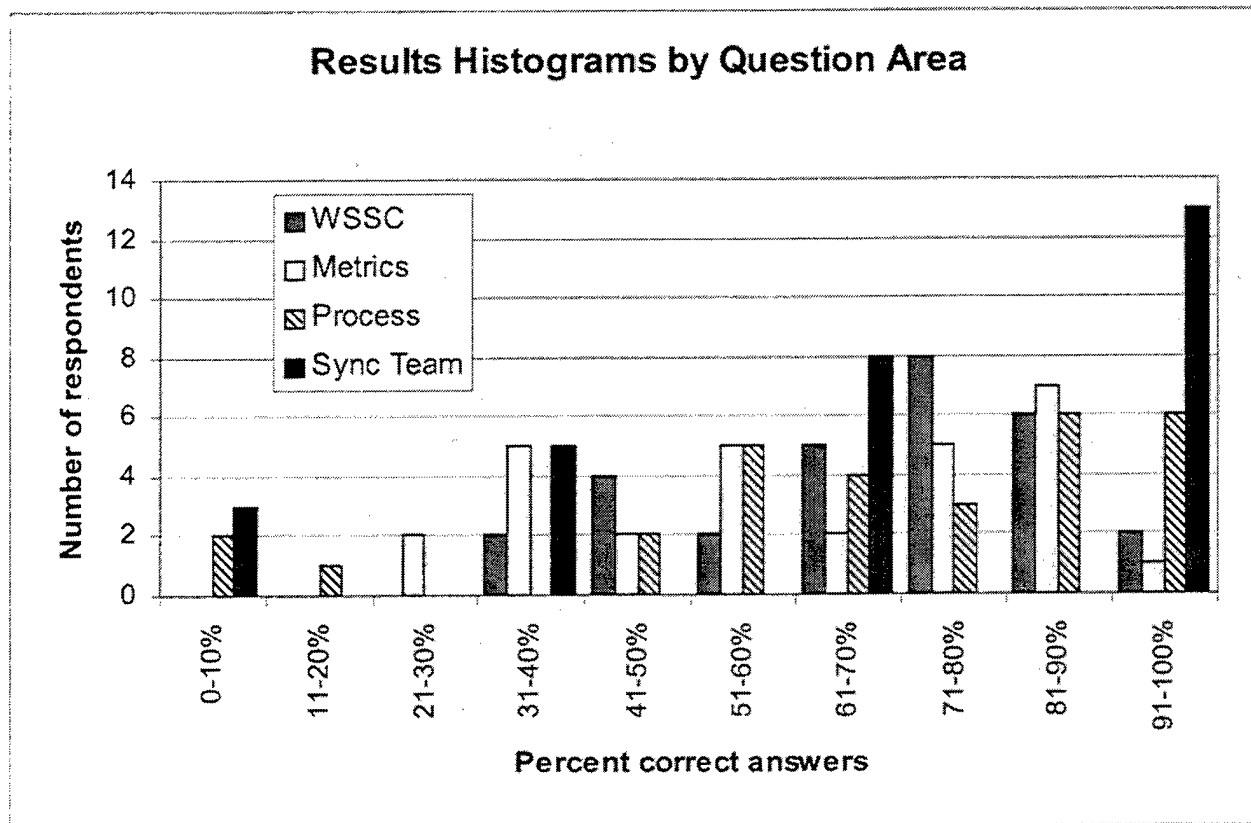


Overall, the respondent's scored 66%, a poor result. About half the group scored above a “D” and half below. There could be some response bias here. Staff with low morale may have little motivation to become knowledgeable about the changes.

Then we also break out the scores by question groups on the survey.

- WSSC: Questions 1-18
- Metrics: 19-37
- Process: 38-46
- Sync Team: 47-49

By looking at these groupings you can get an idea about the aspects of the WSSC change on which staff members are not yet clear.



Staff members had more problems with process and metrics questions than WSSC structure and the Sync Team. Since process and measurement issues are crucial in the new design, lack of knowledge of these areas is an important issue.

## **For More Information**

Please contact: Stanley M. Przybylinski  
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**FAX:** (734) 213-3405  
**Email:** [smp@erim.org](mailto:smp@erim.org)

Thank you again for the time and effort you committed to this survey.

## **Appendix F.**

## **DRMS Effectiveness Tests**

This appendix includes the following materials from our communication effectiveness tests at DRMS:

- Survey 1 and its results. Please note that these surveys were delivered over the Web. Copying the Web files and formatting them as Word documents substantially changed their appearance.
- Survey 2 and its results.
- Survey 3 and its results

## CAP Survey Form #1 - Bidder Registration Process

1. Before receiving this questionnaire, did you know any of the information in the box below?  
Please check each of the items you knew.

<input type="checkbox"/> R1	The new bidder registration process will help DRMS ensure that debarred or indebted bidders are prevented from participating in DRMS sales.
<input type="checkbox"/> R2	The new bidder registration process will help DRMS to improve accuracy.
<input type="checkbox"/> R3	The new bidder process will help reduce duplicate records in DNSP and CORALS.
<input type="checkbox"/> R4	The CORALS system is the most accurate way to determine whether a bidder is indebted or debarred.
<input type="checkbox"/> R5	Using DAISY and DNSP at the same time can shorten the registration time.

2. If you had the information in the box but you heard it differently, please write the facts you heard below.

If you checked above that you knew any of the information, please complete the questionnaire by providing the information requested below.

If you did not check any of the items (you did not know any of the information in the box), you have completed the questionnaire. Please submit the questionnaire using this button:

**I did not know the information.**

Thank you very much for your cooperation.

3. From whom did you **first** receive the information in the box?  
Please check only one.

- ☐ Superiors above your immediate superior?
- ☐ Immediate superiors?
- ☐ Peers (others at your job level)?
- ☐ Subordinates?

4. Where were you when you **first** received the information in the box above?  
Please review all of the options and select the statement that best represents your location. Please check only one.

- ☐ I was working within my designated work area (at my desk, board, workstation, etc.)
- ☐ I was working within my department, but outside of my designated work area.
- ☐ I was working outside of my department
- ☐ I was on break outside of my department, but still within the building (lunch, coffee break, etc.)
- ☐ I was out of the building and not working

5. How long ago did you *first* receive the information in the box?

*Check the approximate time.*

- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| <input type="radio"/> Today          | <input type="radio"/> 1 - 2 weeks ago |
| <input type="radio"/> 1 - 2 days ago | <input type="radio"/> 3 - 4 weeks ago |
| <input type="radio"/> 3 - 4 days ago | <input type="radio"/> 5 - 6 weeks ago |
| <input type="radio"/> 5 - 6 days ago |                                       |

6. By what method did you *first* receive the information in the box above?

Please review all of the options and select the statement that best represents your location. Please check only one of the following methods.

*Written or visual methods*

- ☐ Personal letter
- ☐ Letter, memo, or service program
- ☐ Electronic mail message
- ☐ Facsimile (FAX)
- ☐ Newsletter
- ☐ Magazine
- ☐ Videotape message
- ☐ Company film
- ☐ Public newspaper or magazine
- ☐ Records
- ☐ Our internal world wide web site
- ☐ An external world wide web site

*Talking or sound methods*

- ☐ Face-to-face conversation
- ☐ Talking over the telephone
- ☐ Talking (and listening) in a small group of two or more
- ☐ Attending an organized meeting, briefing or conference
- ☐ Overhearing what someone else said
- ☐ Radio or television

*Miscellaneous*

- ☐ I am the subject/source of the message
- ☐ Other, (Please explain.)



**Submit Questionnaire**

*Thank you very much for your cooperation.*

# DRMS Communication Effectiveness Survey #1

## Bidder Registration Process

ERIM

May 11, 1999

In early April, a change in the Bidder registration process was communicated from DRMS HQ to the Zone Manager and DRMO Chiefs. Since this policy affected bidding, Distribution Branch Chiefs, Sales Contracting Officers, Cashiers, and Marketing Technicians would need to know about the change. The original message requested that all affected parties review the details of the change available on the DRMS Internal World Wide Web site. (While we were told this was a "change", it was more of a clarification of desired best practice.)

Respondents for this survey were solicited using emails sent to the Zone Managers and DRMO Chiefs. The Zone Managers were provided a URL to a password-protected WWW site. They were provided a user name, password, and code number to identify them by Zone. Chief were sent a similar email, requesting that they respond and to forward a similar request to the appropriate staff members. This indirect contact was necessary since HQ could not provide direct email contact with the specific staff categories. For this same reason, we can only estimate the possible number of respondents. Based on 12 Zone Managers and 83 DRMOs, we estimate that there could be approximately 400 respondents.

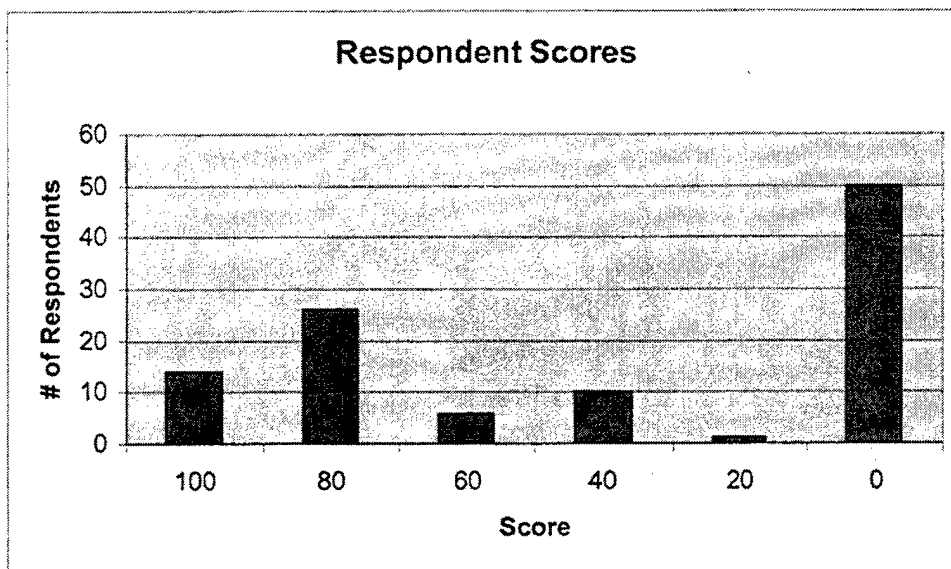
## Results

These results are based on 114 respondents. Overall, this is a 29% response rate. This is reasonable for a survey of this type. Responses rate by zone vary widely. We arbitrarily numbered the 12 Zones from 1 to 12. The rates for each Zone are shown below.

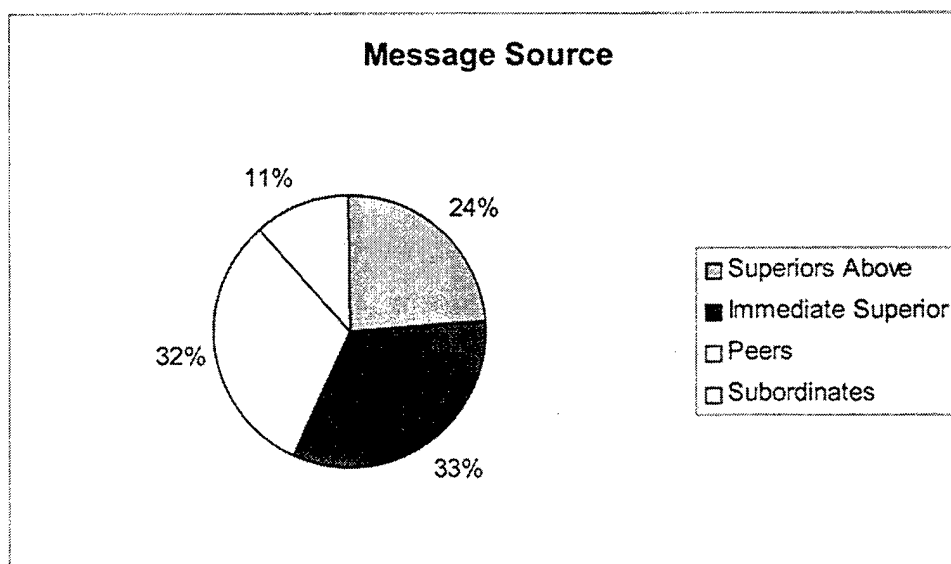
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	Zone 12
Rate	46	36	18	24	14	10	32	7	36	29	50	35

Originally we wanted to track the response down the chain of command, to see how well each message traveled from the Zone Manager to their Chiefs, then from each Chief to their first line supervisors, and finally from those supervisors to their subordinates. As stated above, the best we could do with the email contact information available was to get to each Chief specifically and then ask them to pass a separate message to their first lines and the appropriate subordinates. We assigned code numbers to each respondent that would identify their position in the chain. Unfortunately, our instructions must not have been explicit enough because many Chiefs passed on their message (with their code number) to their subordinates. Thus, our database contains data apparently from multiple Chiefs from each DRMO. In a subsequent survey, we tried a different approach to avoid this problem.

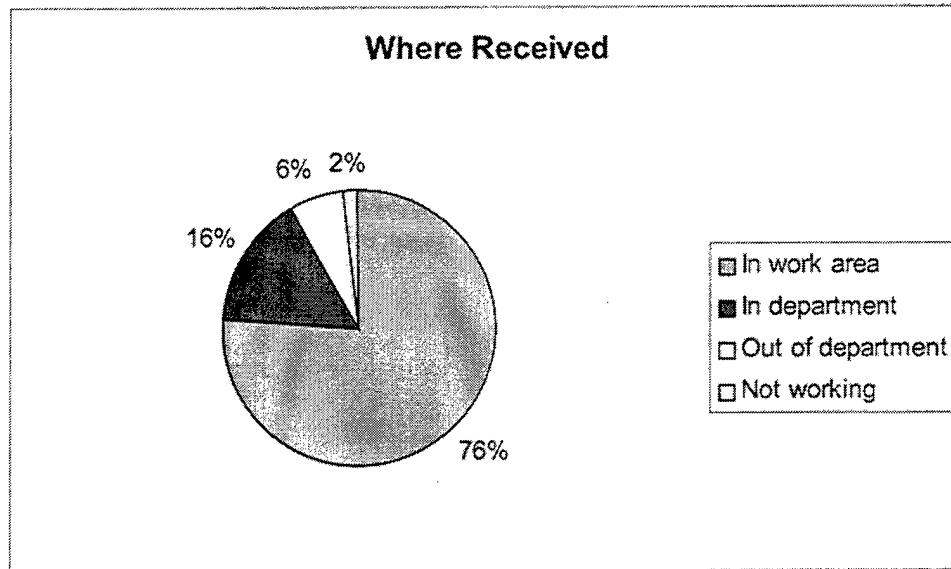
The first question includes five factual statements about the Bidder registration process. Ideally, the respondents should know all five. Scoring "five out of five" would yield a score of 100%, "four out of five" 80% and so on. As can be seen in the graph below, a majority of respondents did not know about the changes in the Bidder registration process.



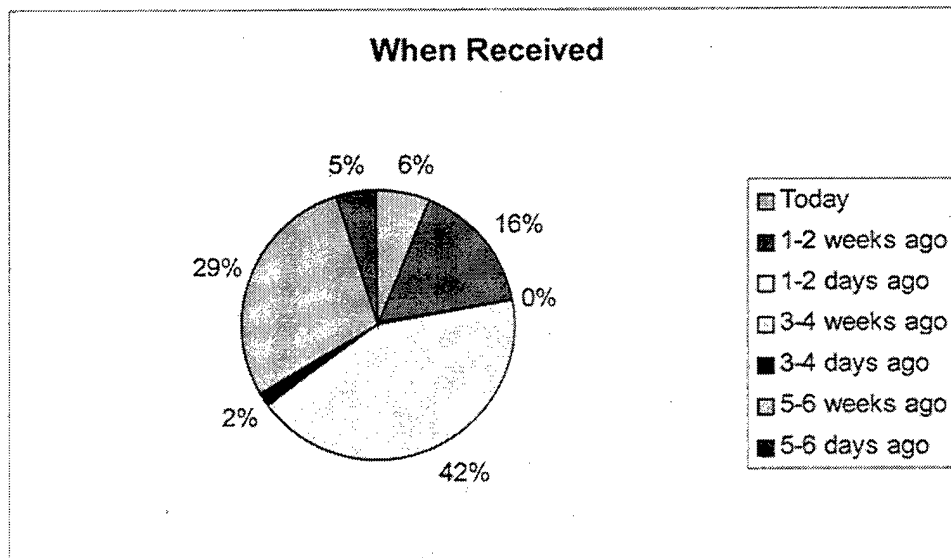
This message was intended to be sent down the DRMS hierarchy from HQ to the Zone Managers, to their DRMO Chiefs, and then to the Distribution Branch Chiefs, Sales Contracting Officers, Cashiers, and Marketing Technicians. Given this, you would expect most respondents to hear the message from superiors or peers. This is reflected in the chart below.



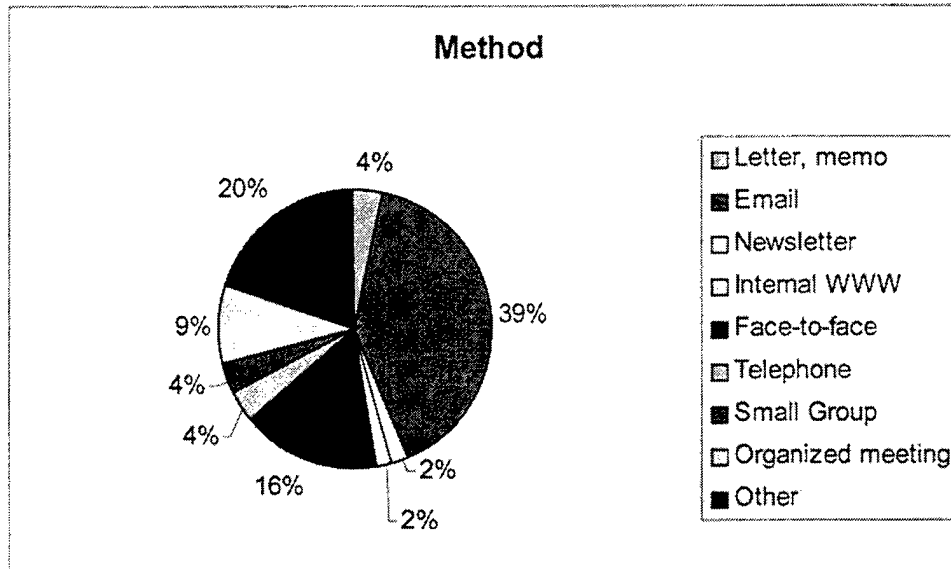
A majority of respondents received the information in their immediate work area.



The original message from HQ about the new Bidder registration process was sent out in the first week of April. This survey was conducted during the last week of April and first week of May. As a manager, you would hope that most people received the message soon after you sent it, i.e., "3-4 weeks ago". The graph below shows that 41% did. It is not clear whether the 29% who said "5-6 weeks ago" just lost track of time



This process change was communicated via email to the Zone Managers and DRMO chiefs using email. In the message, they were told to go to the DRMS Internal WWW site to get more details. The DRMO Chiefs could then provide the information to their staff their normal channels. As you can see in the chart below most DRMS staff received the message via email.



In this survey, there are two opportunities for respondents to provide input in their own words, question 2 ("did you hear the information in question differently?") and question 6 ("By what other means did you first receive the information in question?"). For completeness, we include those comments modified only for spelling and to remove comments that could identify specific respondents.

## Comments in Question 2

I have not heard of a new registration system.

R4-CORALS is not the most accurate system since it does not append with DNSP...CORALS is the system at each HP and is dependent on what the cashier/sales tech inputs.

"The registration time using DNSP and daisy takes a long time and should have been incorporated into daisy corals before they implemented it. It is very hard to have both screens open at the same time as your computer is overloaded as it is and everything makes it more difficult to input faster"

"R3 comment: we all need to get into the same sheet of music when it comes to the how a customer is to be registered. Validation from some type of I.D. for legal name, customers need to be registered with one standard pattern, legal last name, first. Middle name or initial (with the dot at the end or not). We come to the problem that the customer registered one way at one site and is loaded with bin number and then another site registers the customer another way. Example, Black, Thomas p. and Black, Tommy or Black, Tom p. and all are the same person. The system only allows us to search by last name, first name or company name, or zip code. Middle initial should be added.

R4 comment: CORALS on local level does not give us this information, we verify on DNSP.

R5 comment: we try to educate our customer to use the bin number assigned to them, DRMS should try to come up with some type of calling card sent out to the customers once they register to have their name and bin number along with their valid id to verify up front. "

This is the first I've heard of any changes in the way we do business in the last year; no idea there had been any changes. If we do not know the new bidder process why would I be able to answer these questions

I do not understand what you mean by NEW bidder registration. We have only had one way that I know of since the beginning of DAISY/DNSP. What is this new bidder registration stuff? I know only one way to register bidders. You could really shorten bidder registration if everything you needed was on only one system instead of two systems.

What new bidder registration process?

I know nothing about new bidder registration process.

Knew the above info was in the works, but first time addressing the issues.

R4 - I feel that DNSP is the best way to check bidder status

"Received e-mail informing of a test in which the way we input names/addresses will change." "Common Sense"" will follow that the above information would be true. We at the DRMO have been fussing since inception of CORALS because there was no interface and things had to be done twice. As of this time, I have heard nothing concrete regarding test results and if/when interface will take place. The e-mail I received regarding test was as a result of being included as a CORALS user."

## Comments in Question 6

I received this information via the internal data on the DRMS WEB page. His questionnaire does not allow for all the potential answers. Specifically, it does not allow for information to be gathered via personal means, working on your own.

I figured these two points of information myself a while ago, as I am the one who does the majority of checking & registering bidders. Also, I am the only one to add bidders to our local list.

EMAIL from DRMS to all Chiefs. In turn forward to all Sales Staff. Been with DRMS for seven years and from the beginning depended on DNSP for information.....If I remember right, information was obtained from regulation as to how to check bidders and what info to use

"I was already full aware of the information in the above box, before the questionnaire was sent out."

I was asked for my input to the bidder registration process by a contact at DRMS-HQ who was part of the final product sent out via our internal Web site. I feel DRMS-HQ has a great untapped resource in its personnel in the field. We work with the computer programs (DAISY, DNSP, BOSS, etc) daily. We know the 'quirks' in the programs. We are knowledgeable about the regulations and our jobs as well as the needs and wants of our generators/customers. We may even have internal SOPs which fall within the regulatory requirements yet expedite the final product which saves time and money (time is money!) and provides further customer satisfaction. Customer satisfaction includes not only our external customers (sales/generators/etc) but our internal customers such as our co-workers and HQ.

Once I received this message regarding Bidder Registration via e-mail on 4/2, I contacted the Distribution staff and reviewed the process and information with them on 4/6. Since we don't have a Distribution Chief, I the DRMO Chief hold meetings with various branches to ensure the information is forwarded.

I don't know what you mean.

I am not sure of what you mean by new registration. There is only one way I know of to register and that is found in DRMS-I 4160.14 Vol V. Anything else I have not heard about. I learned from my peers how sales registrations are to be processed and the steps to follow to ensure all bidders are registered and not indebted nor debarred. Even before notice actually came down as to how we can simplify registration by having both DNSP and DAISY open at

the same time to save time, we have been doing that already. I feel we have a great crew, always working together to find new and better ways of operating. Thanks  
I know nothing about new bidder registration process.

## Discussion

While there may have been some confusion as to whether this indeed was a new process or not, many respondents were not clear about what the desired best practice is for bidder registration. The document issued from Headquarters contained some general information about what should be done. However, the desired behaviors required some advanced skills, such as complex Boolean searching to find any duplicate names in the databases and the simultaneous use of two different applications programs, DNSP and CORALS. The results of the communications baselining survey conducted as part of this study illustrated that field staff have had little formal training on many of the computer-based tools they must use everyday. It is recommended that future process clarifications that require the mastery of advanced computing skills be accompanied by more detailed process descriptions, including relevant examples using graphics and screen captures from the relevant applications programs.

## CAP Survey Form # 2 - AEDA Policy Guidance

1. Before receiving this questionnaire, did you know any of the information in the box below?  
Please check each of the items you knew.

<input type="checkbox"/>	R1	AEDA inert certifications now require two signatures from either qualified DoD or contractor personnel.
<input type="checkbox"/>	R2	A standard memorandum of understanding is now available for DRMO use with all of their AEDA generators.
<input type="checkbox"/>	R3	When turned in to the DRMO, containers placed on or banded to pallets must allow for visual inspection of all containers.
<input type="checkbox"/>	R4	AEDA Range Residue that may be dangerous to public health and safety must be rendered safe and the area normally containing the hazardous material must be opened for visual inspection.
<input type="checkbox"/>	R5	Before removal of AEDA material, qualified individuals will brief the purchaser and DRMO personnel on the responses/actions necessary in the event that live or suspected live AEDA is discovered.

2. If you had the information in the box but you heard it differently, please write the facts you heard below.  
Use the reference numbers R1 - R5 from above.

If you checked above that you knew any of the information, please complete the questionnaire by providing the information requested below.

If you did not check any of the items (you did not know any of the information in the box), you have completed the questionnaire. Please submit the questionnaire using this button:

**I did not know the information**

Thank you very much for your cooperation.

3. From whom did you **first** receive the information in the box?  
Please check only one.

- ☐ Superiors above your immediate superior?
- ☐ Immediate superiors?
- ☐ Peers (others at your job level)?
- ☐ Subordinates?

4. Where were you when you **first** received the information in the box above?  
Please review all of the options and select the statement that **best** represents your location. Please check only one.

- ☐ I was working within my designated work area (at my desk, board, workstation, etc.)
- ☐ I was working within my department, but outside of my designated work area.
- ☐ I was working outside of my department
- ☐ I was on break outside of my department, but still within the building (lunch, coffee break, etc.)
- ☐ I was out of the building and not working



5. How long ago did you **first** receive the information in the box?  
*Check the approximate time.*

- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| <input type="radio"/> Today          | <input type="radio"/> 1 - 2 weeks ago |
| <input type="radio"/> 1 - 2 days ago | <input type="radio"/> 3 - 4 weeks ago |
| <input type="radio"/> 3 - 4 days ago | <input type="radio"/> 5 - 6 weeks ago |
| <input type="radio"/> 5 - 6 days ago |                                       |

6. By what method did you **first** receive the information in the box above?  
Please review all of the options and select the statement that best represents your location. Please check only one of the following methods.

*Written or visual methods*

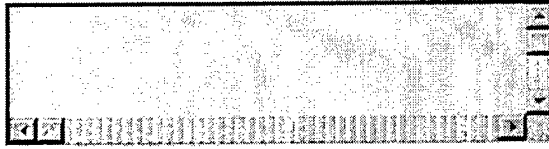
- ☐ Personal letter
- ☐ Letter, memo, or service program
- ☐ Electronic mail message
- ☐ Facsimile (FAX)
- ☐ Newsletter
- ☐ Magazine
- ☐ Videotape message
- ☐ Company film
- ☐ Public newspaper or magazine
- ☐ Records
- ☐ Our internal world wide web site
- ☐ An external world wide web site

*Talking or sound methods*

- ☐ Face-to-face conversation
- ☐ Talking over the telephone
- ☐ Talking (and listening) in a small group of two or more
- ☐ Attending an organized meeting, briefing or conference
- ☐ Overhearing what someone else said
- ☐ Radio or television

*Miscellaneous*

- ☐ I am the subject/source of the message
- ☐ Other, (Please explain.)



**Submit Questionnaire**

*Thank you very much for your cooperation.*

## DRMS Communication Effectiveness Survey #2

### Ammunition, Explosives, and Other Dangerous Articles (AEDA) Policy Guidance

ERIM  
May 17, 1999

In early April, the publication of revised guidance for the processing of AEDA and Range Residue communicated from DRMS HQ to the DRMS Vice Presidents, Zone Managers, and DRMO Chiefs. This policy change should have been communicated down the following hierarchy:

The DRMO Chief to:

- The Property Management Branch to the Demil Coordinator;
- The Distribution Branch Chief to the Marketing Specialist(s); and
- The Environmental Branch Chief

The original email message requested that all affected parties review the details of the change available on both the DEMIL page of the DRMS Internal World Wide Web site and on the DoD Demilitarization and Trade Security Controls Web site.

We solicited survey respondents emails sent to the Zone Managers and DRMO Chiefs. The Zone Managers were provided a URL to a password-protected WWW site. Their user name, password, and code number identified them by Zone. Chief received a similar email, requesting that they respond and to forward a similar request to the appropriate staff members. Indirect contact was necessary since HQ could not provide direct email contact with the specific staff categories. For this same reason, we can only estimate the possible number of respondents. Based on 12 Zone Managers and 83 DRMOs, we estimate that there could be approximately 510 respondents.

## Results

These results are based on 91 respondents. Overall, this is an 18% response rate. This is reasonable for a survey of this type, but is much lower than for our first survey. There are several possible explanations for this difference. The first survey was sent out from the DRMS Commanders email address, the second from a HQ staffer. The second solicitation was sent out soon after the first and may not have been distinguished as a separate survey. Finally, some respondents may have simply declined to be surveyed again.

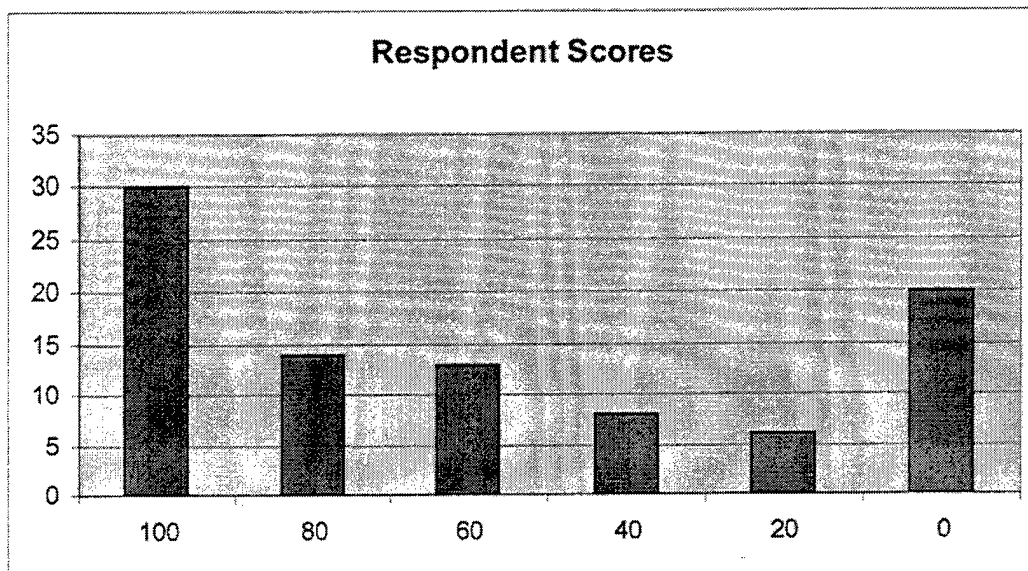
Responses rate by zone vary widely. We arbitrarily numbered the 12 Zones from 1 to 12. The rates for each Zone are shown below.

	Zone											
	1	2	3	4	5	6	7	8	9	10	11	12
Total Rate	58	32	16	17	16	11	16	23	42	28	6	20
Chiefs	100	50	17	43	33	33	33	33	67	44	17	36
Zone Mgrs	42											

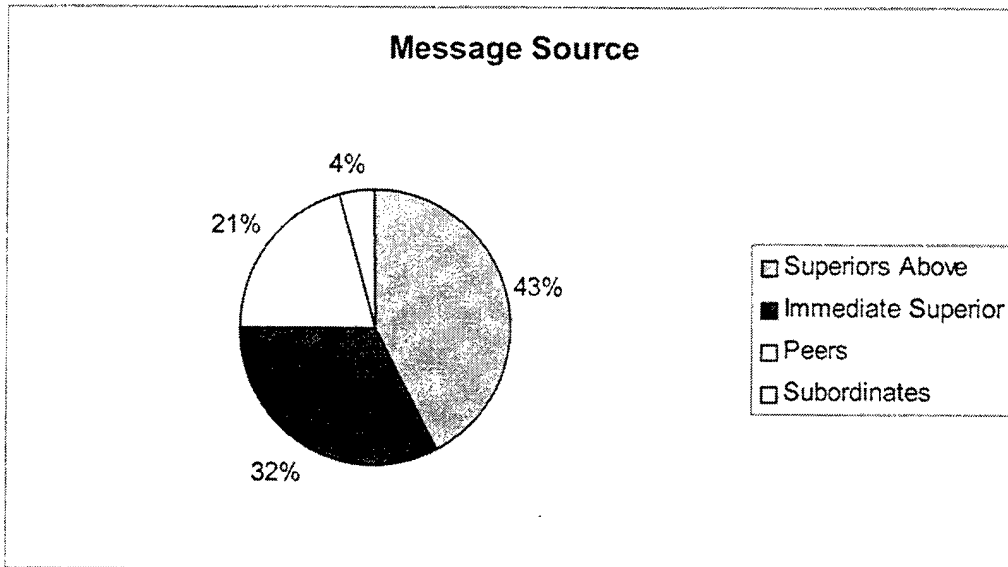
Originally we wanted to track the response down the chain of command, to see how well each message traveled from the Zone Manager to their Chiefs, then from each Chief to their first line supervisors, and finally from those supervisors to their subordinates. As stated above, the best we could do with the email contact information available was to get to each Chief specifically and then ask them to pass a separate message to their first lines and the

appropriate subordinates. We assigned code numbers to each respondent that would identify their position in the chain. Unfortunately, our instructions must not have been explicit enough because many Chiefs passed on their message (with their code number) to their subordinates. Thus, our database contains data apparently from multiple Chiefs from each DRMO. (From their responses and other information captured with the survey data, we know these multiple responses probably did not come from the same person.) In our last survey, we tried a different approach to avoid this problem.

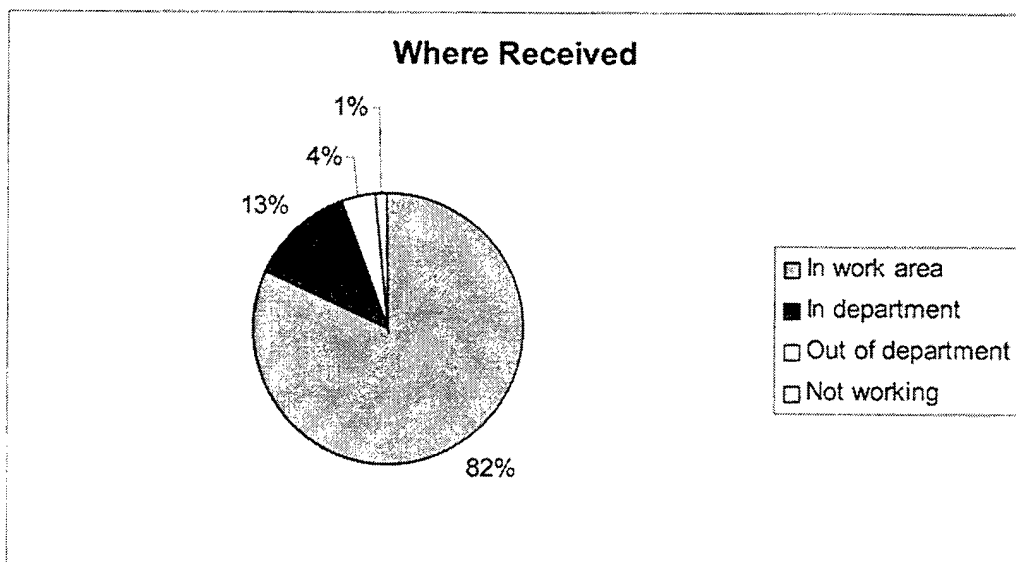
The first question includes five factual statements about the Bidder registration process. Ideally, the respondents should know all five. Scoring "five out of five" would yield a score of 100%, "four out of five" 80% and so on. As can be seen in the graph below, a majority of respondents did know about the changes in the AEDA policy.



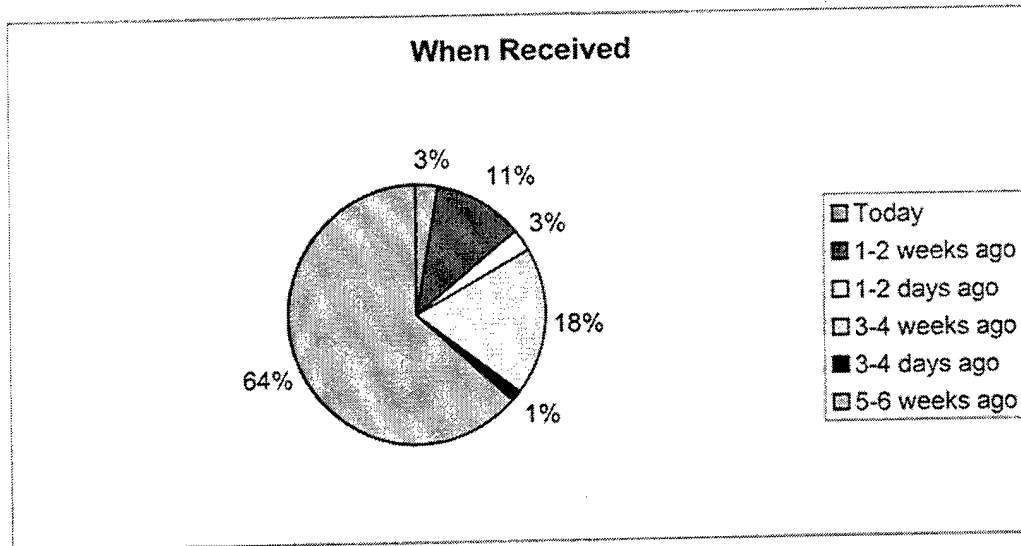
This message was intended to be sent from HQ simultaneously to the Zone Managers and DRMO Chiefs, and then to the Property Management Branch Chief (to Demil Coordinators), the Distribution Branch Chief (to the Marketing Specialists), and the Environmental Branch Chief. Given this, you would expect most respondents to hear the message from superiors. This is reflected in the chart below. Many Chiefs probably passed the HQ message directly to their Chiefs and/or subordinates.



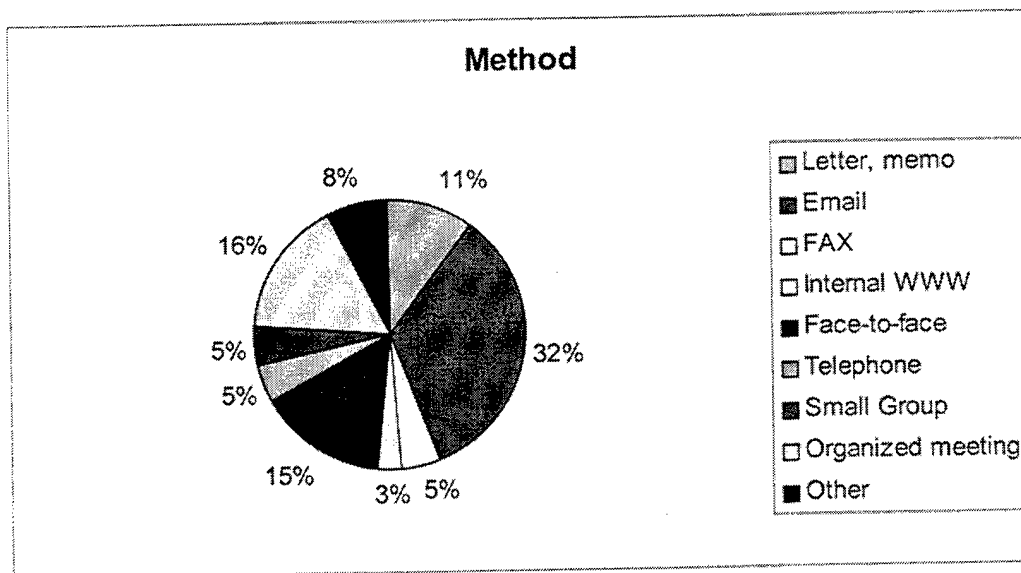
A majority of respondents received the information in their immediate work area.



The original message from HQ about the AEDA policy revision was sent out in the first week of April. This survey was conducted during the first two weeks of May. As a manager, you would hope that most people received the message soon after you sent it, i.e., "3-4 weeks ago" or "5-6 weeks ago". The graph below shows that 82% (64% plus 18%) did.



This process change was communicated to the Zone Managers and DRMO chiefs using email. In the message, they were told to go to one of two WWW sites (one internal and one external) to get more details. The DRMO Chiefs could then provide the information to their staff using their normal channels. As you can see in the chart below most DRMS staff received the message via email.



One possible down side of using a wide variety of mechanisms is that there are more opportunities for the message to be misinterpreted.

In this survey, there are two opportunities for respondents to provide input in their own words, question 2 ("did you hear the information in question differently?") and question 6 ("By what other means did you first receive the information in question?"). For completeness, we include those comments modified only for spelling and to remove comments that could identify specific respondents.

## Comments in Question 2

I have reviewed the above question, have seen some e-mail regarding some of the question, the question could have been written a little better ... and took a lot of time to research to make sure I didn't miss something ... the second group of question were bad!!!! (They were poorly written) if you want to talk about it call <<DRMO Chief deleted - we talked to him at length about our work>>

This has been standard practice at our DRMO for approximately 3 years.

Much of the above info has been received over time. Received mostly from Host AEDA officials and in a slightly different wording but the same basic information.

I do understand the requirement to have two signatures on the inert certification but do not understand why.

I was under the impression that if material is turned in with signatures no visual inspection was necessary. Further, it is my understanding that we do not open containers or un-band material, as we have no one qualified to examine the material for live rounds anyway.

R1 - I thought only one signature was required.

R5 - The initial responding DoD Component will serve as the DoD representative to ensure that all necessary actions are taken to remedy the situation and to ensure that all live or suspected live ordnance is either destroyed or returned to DoD control.

R3 - Last letter received, can request generators configure empty containers this way, but is not mandatory until change approved.

## Comments in Question 6

Actually, the information I received on above checked box was during training at DRMS.

"This is a fuzzy memory. I do not really recall 'when'. This is a case of "I think I recall seeing/hearing something on that". I don't think anyone can keep current on the very wide variety of guidance we get, and I tend to seek out information when faced with a situation. If faced today with a situation on AEDA, I'd be saying to myself: "I think I saw/heard something recently on that", and I'd begin looking for hard data before doing anything."

Email from DRMS-TSD, which led me to the DoD Demilitarization and Trade Security Control Web Site. Info was downloaded and also disseminated to applicable functional areas at the DRMO.

I did not get all of the information in the box in the same manner. Most of it was via email, but some was via telephone and official memorandum. Also most of the information I have known for much longer than 5-6 weeks, some for over a year.

The chief called a meeting when he found or got word that this info was out.

Do not recall.

As mentioned above, most of the info has been received over a long period of time.

Verbal conversation with Demil Coordinator at <<DRMO name deleted>> who recommended that I check the Web for the latest DRMS Letter regarding AEDA policy. This I attempted to do but had to go back to him for further clarification of where to find Letter.

"What is DRMS HQ going to do when there's no one left in the field to take the blame? But then again, WHO CARES!!!"

Source was taken from regulations (4160.21M)

## **Discussion**

This change was disseminated much faster than in our previous survey, with a higher comprehension rate. This is despite the fact that these changes were buried in revised DoD standards. The DRMO staff should be commended on their ability to decipher the changes (something this researcher could not do as easily). If the specific changes were highlighted as part of the communication, it might be easier on all of those who have to learn about them. (I tried to do a side-by-side comparison of the old and new versions but the cited Web pages did not provide the necessary information.) It is also worth noting that many people knew that these changes were in the works for some time.

One point made by a respondent is worth noting, however. In the original message, the respondents were told to go to the DRMS DEMIL page to find the necessary information. It took four screens of information to get to that point. One ready benefit of the WWW is that it is possible to directly address any resource (i.e., URL) on the Web. Future communications could make it easier on receivers if the direct URLs were provided.



## CAP Survey Form #3 - Electrical and Electronic Scrap

1. Before receiving this questionnaire, did you know any of the information in the box below?  
Please check each of the items you knew.

<input type="checkbox"/> R1	The main objective of the electrical and electronic scrap demanufacturing contract awarded December 30, 1998 is higher proceeds.
<input type="checkbox"/> R2	Use of the demanufacturing contracts is mandatory in the continental U.S.
<input type="checkbox"/> R3	Sale of electronic scrap by local or zone methods is still authorized.
<input type="checkbox"/> R4	Scrap property destined for the demanufacturing must be handled like usable property.
<input type="checkbox"/> R5	Usable property in critical Federal Supply Classes (FSCs) to be downgraded to scrap and removed by the demanufacturing contractors is exempt from the mutilation requirements for critical FSCs.

2. If you had the information in the box but you heard it differently, please write the facts you heard below.  
Use the reference numbers R1 - R5 from above.

If you checked above that you knew any of the information, please complete the questionnaire by providing the information requested below.

If you did not check any of the items (you did not know any of the information in the box), you have completed the questionnaire. Please submit the questionnaire using this button:

**I did not know the information**

Thank you very much for your cooperation.

3. From whom did you **first** receive the information in the box?  
Please check only one.

- ☐ Superiors above your immediate superior?
- ☐ Immediate superiors?
- ☐ Peers (others at your job level)?
- ☐ Subordinates?
- ☐ None of the above?

4. Where were you when you **first** received the information in the box above?  
Please review all of the options and select the statement that best represents your location. Please check only one.

- ☐ I was working within my designated work area (at my desk, board, workstation, etc.)
- ☐ I was working within my department, but outside of my designated work area.
- ☐ I was working outside of my department
- ☐ I was on break outside of my department, but still within the building (lunch, coffee break, etc.)

☐ I was out of the building and not working

5. How long ago did you *first* receive the information in the box?  
*Check the approximate time.*

- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| <input type="radio"/> Today          | <input type="radio"/> 1 - 2 weeks ago |
| <input type="radio"/> 1 - 2 days ago | <input type="radio"/> 3 - 4 weeks ago |
| <input type="radio"/> 3 - 4 days ago | <input type="radio"/> 5 - 6 weeks ago |
| <input type="radio"/> 5 - 6 days ago |                                       |

6. By what method did you first receive the information in the box above?  
Please review all of the options and select the statement that best represents your location. Please check only one of the following methods.

*Written or visual methods*

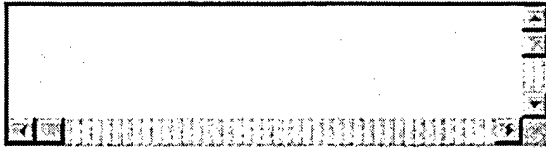
- ☐ Personal letter
- ☐ Letter, memo, or service program
- ☐ Electronic mail message
- ☐ Facsimile (FAX)
- ☐ Newsletter
- ☐ Magazine
- ☐ Videotape message
- ☐ Company film
- ☐ Public newspaper or magazine
- ☐ Records
- ☐ Our internal world wide web site
- ☐ An external world wide web site

*Talking or sound methods*

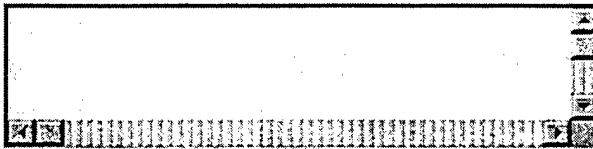
- ☐ Face-to-face conversation
- ☐ Talking over the telephone
- ☐ Talking (and listening) in a small group of two or more
- ☐ Attending an organized meeting, briefing or conference
- ☐ Overhearing what someone else said
- ☐ Radio or television

*Miscellaneous*

- ☐ I am the subject/source of the message
- ☐ Other, (Please explain.)



7. Please use this space to provide any comments on this survey, the management communication in question, etc.



**Submit Questionnaire**

*Thank you very much for your cooperation.*

# DRMS Communication Effectiveness Survey #3

## Electrical and Electronic Scrap Demanufacturing

### Contract Policy Letter

ERIM  
May 17, 1999

In late April, DRMS HQ published a memorandum to the National Region Manager, National Zone Managers, and the DRMO Chiefs about the demanufacturing contracts for electrical and electronic scrap. This policy change should have been communicated down the following hierarchy:

The DRMO Chief to:

- The Property Management Branch to the Demil Coordinator, Receiving Coordinator(s)/Schedulers, and Receivers.
- The Distribution Branch Chief to the Marketing Specialist(s); and
- The Environmental Branch Chief

We solicited survey respondents emails sent to the Zone Managers and DRMO Chiefs. The Zone Managers were provided a URL to a password-protected WWW site. Their user name, password, and code number identified them by Zone. Chief received a similar email, requesting that they respond and to forward a similar request to the appropriate staff members. Indirect contact was necessary since HQ could not provide direct email contact with the specific staff categories. For this same reason, we can only estimate the possible number of respondents. Based on 12 Zone Managers and 83 DRMOs, we estimate that there could be approximately 510 respondents.

## Results

These results are based on 92 respondents. Overall, this is an 18% response rate. This is reasonable for a survey of this type, but is much lower than for our first survey. There are several possible explanations for this difference. The first survey was sent out from the DRMS Commanders email address, the second from a HQ staffer. The second solicitation was sent out soon after the first and may not have been distinguished as a separate survey. Finally, some respondents may have simply declined to be surveyed again.

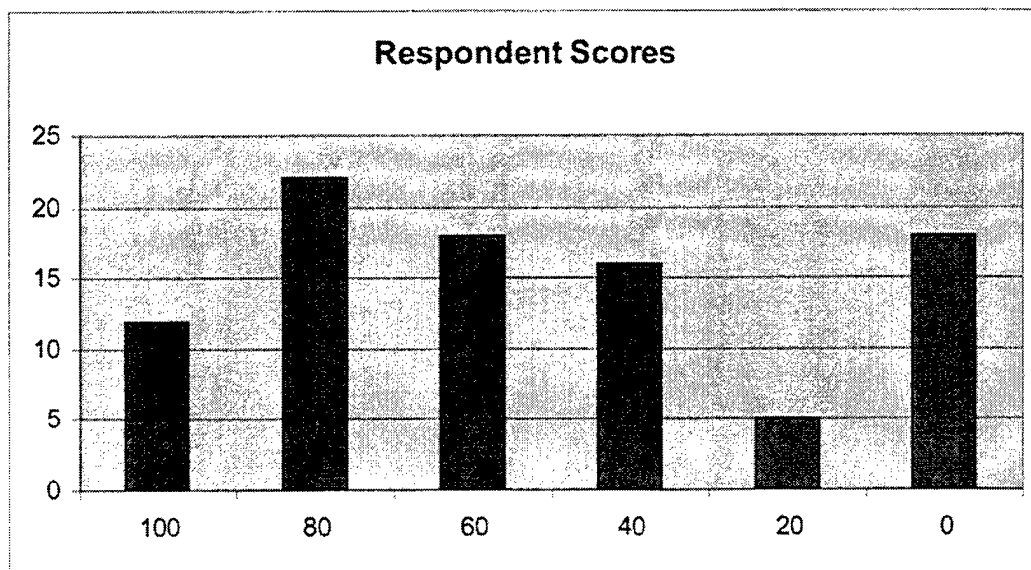
Responses rate by zone vary widely. We arbitrarily numbered the 12 Zones from 1 to 12. The rates for each Zone are shown below.

	Zo ne											
	1	2	3	4	5	6	7	8	9	10	11	12
Total Rate	31	32	3	22	6	13	23	26	35	35	26	13
Chiefs	60	67	17	43	17	33	17	50	50	56	17	36
Zone Mgrs	33											

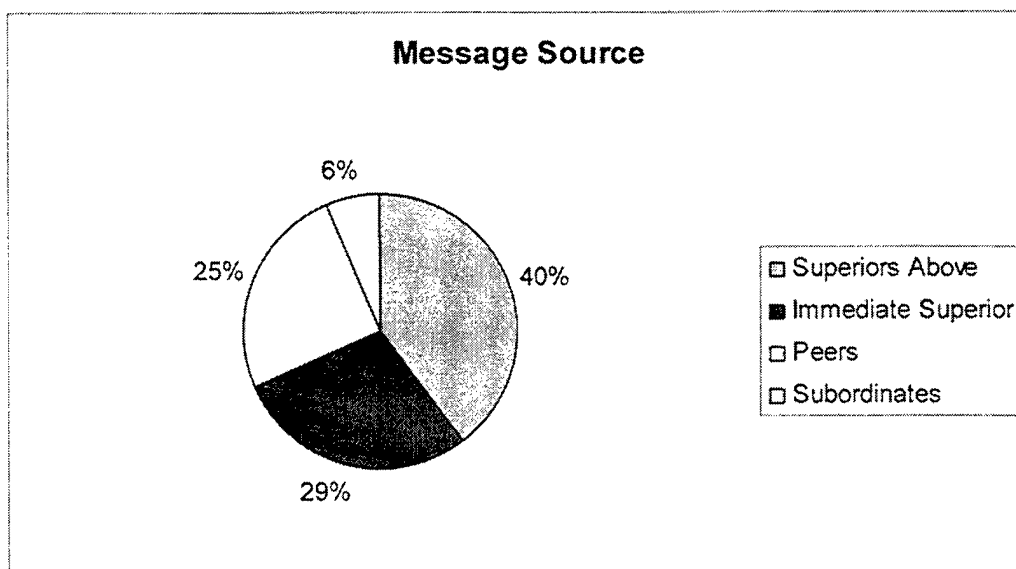
Originally we wanted to track the response down the chain of command, to see how well each message traveled from the Zone Manager to their Chiefs, then from each Chief to their first line supervisors, and finally from those supervisors to their subordinates. As stated above, the best we could do with the email contact information available was to get to each Chief specifically and then ask them to pass a separate message to their first lines and the appropriate subordinates. We assigned code numbers to each respondent that would identify their position in the chain. Unfortunately, our instructions must not have been explicit enough because many Chiefs passed on their message (with their code number) to their subordinates. Thus, our database contains data apparently from multiple

Chiefs from each DRMO. (From their responses and other information captured with the survey data, we know these multiple responses probably did not come from the same person.)

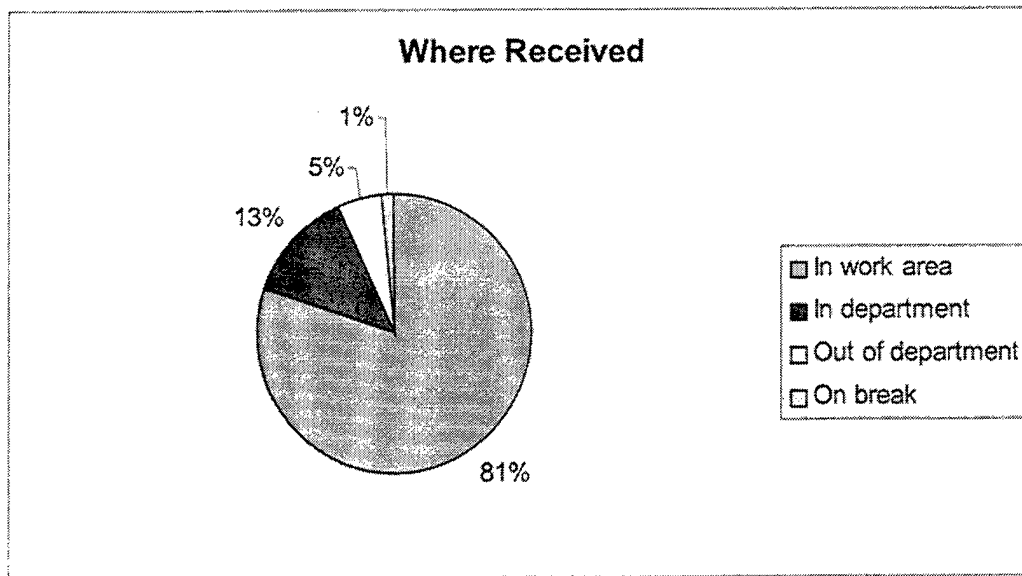
The first question includes five statements about the demilitarization contracts. Three were "true" and two were intentionally made "false". Ideally, the respondents should know all five. Scoring "five out of five" would yield a score of 100%, "four out of five" 80% and so on. As can be seen in the graph below, the scores are good. Most of the respondents knew something about the new policy, with 57% of respondents "passing" the "test". However, the fact that 18 respondents (almost 20%) had either yet to hear about the policy or knew none of the "facts" should be a cause for some concern.



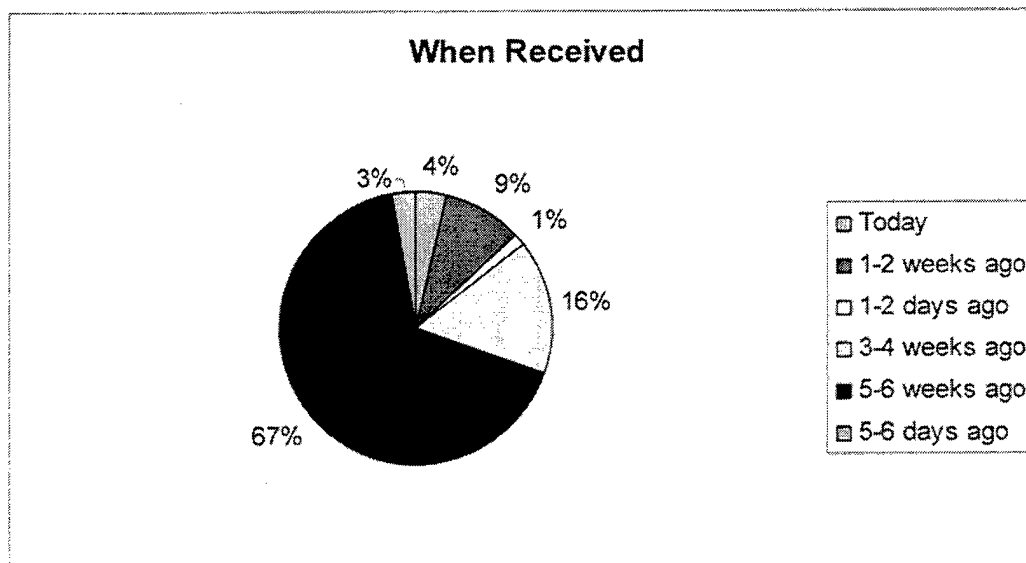
This message was intended to be sent from HQ simultaneously to the Zone Managers and DRMO Chiefs, and then to the Property Management Branch Chief (to Demil Coordinators, Receiving Coordinator(s)/Schedulers, and Receivers), the Distribution Branch Chief (to the Marketing Specialists), and the Environmental Branch Chief. Given this, you would expect most respondents to hear the message from superiors. This is reflected in the chart below. Many Chiefs probably passed the HQ message directly to their Chiefs and/or subordinates.



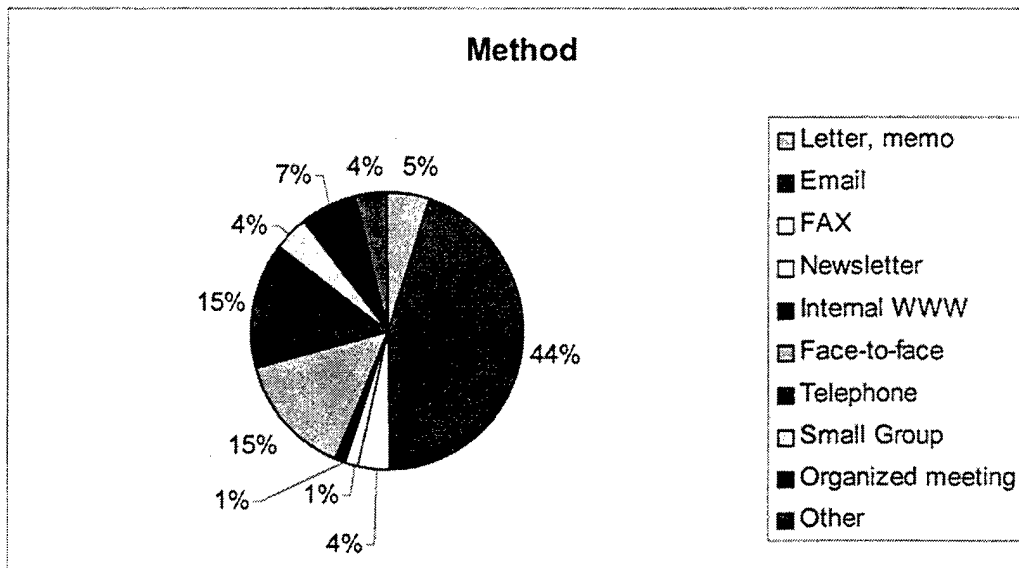
A majority of respondents received the information in their immediate work area.



The original message from HQ about the demilitarization contracts was sent out on 29 April. This survey was conducted during the first two weeks of May. As a manager, you would hope that most people received the message soon after you sent it, i.e., "1-2 weeks ago" or "5-6 weeks ago". It is not clear why a vast majority of the respondents (67%) said they received this information 5-6 weeks ago, unless there was a previous communication about this topic. (The responses to the open-ended question provide the answer; many people in the field have been hearing about this for months.)



This process change was communicated to the Zone Managers and DRMO chiefs using FAX. The DRMO Chiefs could then provide the information to their staff using their normal channels. As you can see in the chart below most DRMS staff received the message via email.



One possible down side of using a wide variety of mechanisms is that there are more opportunities for the message to be misinterpreted.

In this survey, there are three opportunities for respondents to provide input in their own words:

- Question 2 ("did you hear the information in question differently?")
- Question 6 ("By what other means did you first receive the information in question?").
- Question 7, an open ended item added for this last survey to give respondents a place to comment on the survey, or just about anything else.

For completeness, we include those comments modified only for spelling and to remove comments that could identify specific respondents.

## Comments in Question 2

In this question, respondents were allowed to comment on the "facts" listed in the first question. For your reference, these are the "facts" used as part of this survey:

- R1. The main objective of the electrical and electronic scrap demanufacturing contract awarded December 30, 1998 is higher proceeds. (This is a **FALSE** statement.)
- R2. Use of the demanufacturing contracts is mandatory in the continental U.S.
- R3. Sale of electronic scrap by local or zone methods is still authorized. (This is a **FALSE** statement.)
- R4. Scrap property destined for the demanufacturing must be handled like usable property.
- R5. Usable property in critical Federal Supply Classes (FSCs) to be downgraded to scrap and removed by the demanufacturing contractors is exempt from the mutilation requirements for critical FSCs.

*R3 sale NOT authorized, per DRMS-LM memo dated 4/29/99*

*R3 sale of electronic scrap is NOT AUTHORIZED, PER DRMS MEMO DATED 29 APR 99"*

*R4/R5. I didn't hear anything differently, I just wasn't aware of those facts, but my employees do.*

*R1. This Contract is a service contract and it cost DRMS money. We do not get proceeds*

*R3. Sale of electronics (i.e., computers turning from a federal agency must be sold on a local per DRMS.*

*R1 - Thought environmental considerations were the main objective.*

*R4 - I was under the impression that scrap was scrap and Demil was treated as usable property for accountability.*

*R2- as long as you don't have a term D4R contract in place.*

*R3 Local or zone sale of electronic scrap is not authorized.*

*The main objective for electronic scrap, if this includes AE, should be RTD to UNICOR. Why should we give it to someone, like the contractor, when we can save Tax dollars through the UNICOR program. The DRMO receives higher proceeds through RTD than the contractor.*

*R1: The main objective of demanufacturing contract is to reduce the volume of scrap thus resource reduction. "*

*R1: I thought the demanufacturing contract was a service contract, meaning we pay for the service, not a proceeds contract, where they pay us.*

*R3,4,5: I have no idea"*

*R3 - I thought ALL electronic scrap will go to the Demanufacturing Contract.*

*R4 - Why would scrap be handled like usable?"*

*R1 - I thought the main objective of the demanufacturing contract was environmental concerns. If it is higher proceeds, they are way of track. I can get higher proceeds through local or zone sale.*

*R3 - I just received a letter yesterday from DRMS-LM, dated April 29, 1999 saying local or zone sale is not authorized.*

*R4 - This is brand new guidance (April 29 letter) that contradicts previous guidance and is also unworkable."*

*I heard that the main objective was more environmental in nature. And a cost avoidance for third party sites. Also, my sales staff has been told that use of this contract vice sales is mandatory.*

*R1 - The main objective is pollution prevention.*

*R3 - Local or Zone sales are NOT authorized."*

*Sale of electronic scrap by local or zone sales was not authorized.*

*R1 - The main objective was to relieve the DRMO of doing demil and mutilation, higher proceeds seemed to be secondary.*

*R3 - Sale of electronic scrap by local or zone method is NOT authorized any longer."*

*R1. I heard it was a primarily for the environmental concern regarding D4R, capacitors, etc. The contractor would be responsible for this.*

*R3. We are not allowed to sell electronic scrap on national or local as of 29 Apr 99."*



*R1 - The main objective is to recycle the material content of unusable or obsolete DoD-owned electrical and electronic equipment in an environmentally responsible manner, rendering any non-commercial items completely unusable by the process of demilitarizing the property.*

*R3 - Only if a contract was in place.*

*R4 - This statement is false.*

*I believe there is some confusion about what the contractors are looking for---one appears to want scrap and the other usable. Possibly, it is clear to others but not to myself as yet.*

*R1 Main objective is to reduce DRMO workload/man-years.*

*R2 Not mandatory for many DRMOs.*

*R3 Depends on circumstances, generally yes.*

*R4 In a talk with Demanufacturing Contractor, he says yes, but practical side, no. Property is scrap.*

*Have just been informed by my Sales Writer that attended training in Battle Creek that the sale of electronic scrap on local sale is now prohibited; however, to my knowledge, I have not seen that instruction in writing.*

*R1 demanufacturing contract is for environmental reasons not proceeds.*

*R1= Proceeds were not the primary reason, environmental concerns/Liability was the primary reason*

*R3= Sale of electronic scrap by local or zone methods was not authorized per DRMS-LM letter dated 4/29/99 same subj.*

*R3-Know that the sale of electronic scrap on existing contracts was still okay, but no new referrals.*

*R4-Did not know that we were to handle the scrap as usable, the referral said that we could order roll-off containers which led us to believe that we could dump from hoppers.*

*R4 Just last week I learned through my zone manager that this scrap could not go out in hoppers but must be packaged similar to usable property. A few days ago I got something in writing verifying that.*

*R3 electronic scrap can not be sold on local or zone sales.*

*R3. Instruction sent out in February 99 states under scope: "Electronic material that has failed sales efforts and is eligible to be downgraded to scrap, except for Precious Metals bearing material earmarked for the precious metal program". Also states "Electronic material/scrap (i.e. D4R) that is not currently on an existing sales contract". If this is what is supposed to be offered on the DMFG contract how could you still sell it by local or zone methods?*

*R4..The same instruction stated above indicates: "If sufficient weight is available, prepare material for shipment. Follow normal shipping procedures (e.g., banding to pallets, shrink wrapping, placing in tri-walls, etc., hopper dump or crane load open top conveyance." Totally contradicts R4.*

## **Comments in Question 6**

These are the list of other "sources" of information.

*Environmental Branch Chief*

*Various sources*

*Even though I had received email traffic concerning the Demanufacturing contract, I did not fully understand the procedures until I had face-to-face conversation with XXX at DRMS.*

*"My supervisor informed all employees in our weekly meeting about the dmfg contract."*

*This subject came up during an informal meeting to discuss other subjects in which I am directly involved.*

## **Comments in Question 7**

These comments could be about the communication in question, the survey itself, or any other topic.

*I think this could be explained in better way. The questions are too wide in range*

*I knew about this project very early because DMC is right up the road from both the DRMOs I command. XXX and YYY. I am also a COTR on both contracts.*

*This is a waste of time, what difference does it make where you were when the lights went out in Georgia?*

*DRMS does a lousy job on keeping their employees briefed on all the initiatives that are ongoing. More efforts need to be brought forward toward this end.*

*I question that the information is getting to the actual personnel doing to work, i.e., scrap yard personnel or those that may downgrade items.*

*Some of the information in the box was sent out several months ago. Other information is brand new and contradicts previous guidance. R3 in the box is false according to most recent guidance. Also, the source of the information varied. Most was by formal memo, some was by email. Most of it was after the fact. There was almost no information provided to, or solicited from, the field prior to the contract being awarded. Changes are still being made without any field input.*

*Question #3 - received the information from various sources. Peers on a conference call and the same and additional information in a letter signed by a staff EVP. Question #4 has not been applicable in any of the surveys.*

*I feel this is going to cost the Government way too much money.*

*This info should have been provided months ago, when we first started accumulating this scrap for the contract. We did not know it had to be treated and stored as usable.*

*Possibly you should accept more than one answer for a question--only one answer is limiting, but maybe that is your intent. Also possibly allow more opportunities to briefly offer explanations/comments.*

*I have also been told that just because a PCB suspected electronic device may be put into the Demanf. items. Is this so? Like boxes of already removed PCB suspect transformers and capacitors from electronic cabinets, etc.*

*This Contract has to be the worst executed since I have been in DRMS (15 years). No one in the field was involved in the process until after it was awarded. After it was awarded, the contract was taken off the WWW I feel in an attempt to keep the field from reading the contract. To date the work instruction is very unclear and everything I have learned is from fellow DRMO workers and not from the appropriate official personnel. If someone can explain to me how we will make more money selling scrap to deman (considering the preparation we are supposed to be doing) when we were making money selling it at the DRMOs. I feel we are being forced to lie on the inventory in that we are referring demil required property as a usable line item when indeed it has been scrapped and DRMS is selling a usable item as scrap. Again, it is the worst executed contract to date (outdoing the auctioning).*

*The Demanufacturing contract was very confusing to the personnel in the field. We were not made aware of the specifics other than it was going to happen. I thought the contractor was going to pay us, not the other way. It turns out that we are paying to remove (i.e. service contract type) and then the 'government' will be reimbursed for something later down the line. How is that going to work? We need to get a better feel of what is happening. DRMS should not put together something without letting someone in the field know what is going on and then tell DRMO personnel that they have to do it without any kinds of explanations and/or initial guidance. When we were told this was a scrap contract, we thought we could handle as scrap. All other D4R contracts that were handled by sales contract were treated as scrap, loaded with front end loaders or dumped from hoppers. Even though this is not called D4R anymore, we all know that is exactly what it is.*

*There have been many updates to this contract. We just went online with RCP in April, we delivered our first group of CV property in mid March, we have two facilities (DRMOs). We just closed but are working as forward receiving activities, we have the demil center and are trying to get all the off-site DRMOs on line to start turning in to us. Plus we are getting ready to downsize by more than 1/3 of our workforce (from 29 to 17) by 1 October, and I've got more e-mail than I can handle. It's no wonder to me that we have a hard time keeping up with what is going on.*

*"the instructions for processing, storage, handling, and shipments need to be fine tuned so everybody is working together correctly. In house SOP. There are just too many options in this contract. I will be working this material so this comment is critical to me"*

*Where are you going with this/what is the purpose? If this process was mandated, there are sure some puppets out there. Also, someone had better have another talk with Bucks Bunny on how to get the most \$ for this commodity.*

## **Discussion**

This change was disseminated much faster than in our previous survey, with a higher comprehension rate. The open-ended comments make it clear that at least some of the staff in the field knew about this for months, which is a reasonable explanation for both the high scores and the variety of communication mechanisms employed. However, even with all of this communication over time there are still almost 20% of the respondents who did not know any of it.

The open-ended comments show the frustrations of the DRMO staff with respect to policy changes such as these.

## **Appendix G.**

## **WR Effectiveness Tests**

This appendix includes the following materials from our communication effectiveness tests at WR-ALC:

- Survey 1, Site Assistance Visit and Operational Readiness Inspection, and its results
- Survey 2, Industrial Prime Vendor, and its results
- Survey 3, Forward Support Areas, and its results

1. Before receiving this questionnaire, did you know the information in the box below or any part of it?

R1	The Site Assistance Visit showed that the implementation of the AREP process still has a long way to go.
R2	The main green area identified during the Site Assistance Visit was "AREP Process Implementation"
R3	The areas identified as "low" during the Communications Survey have all been resolved.
R4	The main red area identified during the Site Assistance Visit was "Conducting Material Forward Looks".
R5	The upcoming Operational Readiness Inspection (ORI) is an important event for WR-ALC.
R6	The ORI will be 1-5 February.

*Please check only one:*

- ☐ No, I did not know any of it.  
☐ Yes, I knew all of it.  
☐ Yes, I knew part of it.      → If so, please list the numbers of the parts you knew.

2. If you had the information in the box but you heard it differently, please write the facts you heard below.

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*If your answer above was "Yes, I knew all of it," or " Yes, I knew part of it," please complete the questionnaire by providing the information requested below. If your answer above was "No, I did not know any of it," you have completed the questionnaire. Please return the questionnaire to me or drop it in the information box. Thank you very much for your cooperation.*

3. From whom did you first receive the information in the box?

*Please check only one.*

- ☐ Superiors above your immediate superior?  
☐ Immediate superiors?  
☐ Peers (others at your job level )?  
☐ Subordinates?

4. Where were you when you first received the information in the box above?

*Please check only one.*

- ☐ I was working within my designated work area (at my desk, board, workstation, etc.)  
☐ I was working within my department, but outside of my designated work area  
☐ I was working outside of my department  
☐ I was on break outside of my department, but still within the building (lunch, coffee break, etc.)  
☐ I was out of the building and not working

**Please turn the page.**

5. How long ago did you first receive the information in the box?

*Check the approximate time.*

- |   |  |
|---|--|
| <input type="checkbox"/> Today          | <input type="checkbox"/> 1 - 2 weeks ago |
| <input type="checkbox"/> 1 - 2 days ago | <input type="checkbox"/> 3 - 4 weeks ago |
| <input type="checkbox"/> 3 - 4 days ago | <input type="checkbox"/> 5 - 6 weeks ago |
| <input type="checkbox"/> 5 - 6 days ago |  |

6. When you first received the information in the box, did you believe it?

*Please check only one.*

- ☐ I believed all of the information
- ☐ I believed some of the information
- ☐ I believed none of the information

7. Since you first received the information in the box, has your opinion changed?

*Please check only one.*

- ☐ I now believe all of the information
- ☐ I now believe some of the information
- ☐ I still believe none of the information

8. By what method did you first receive the information in the box above?

*Please check only one of the following methods.*

*Written or visual methods*

- ☐ Personal letter
- ☐ Letter, memo, or service program
- ☐ Electronic mail message
- ☐ Facsimile (FAX)
- ☐ Newsletter
- ☐ Magazine
- ☐ Videotape message
- ☐ Company film
- ☐ Public newspaper or magazine
- ☐ Records
- ☐ Our internal World Wide Web site
- ☐ An external World Wide Web site

*Talking or sound methods*

- ☐ Face-to-face conversation
- ☐ Talking over the telephone
- ☐ Talking (and listening) in a small group of two or more
- ☐ Attending an organized meeting, briefing or conference
- ☐ Overhearing what someone else said
- ☐ Radio or television

*Miscellaneous*

- ☐ I am the subject/source of the message
  - ☐ Other, (Please explain.) \_\_\_\_\_
-

**WR Survey 1 Results.** This section approximates the results from printing the original PowerPoint file using the "File: Print...: Print what: Handouts (6 slides per page)."

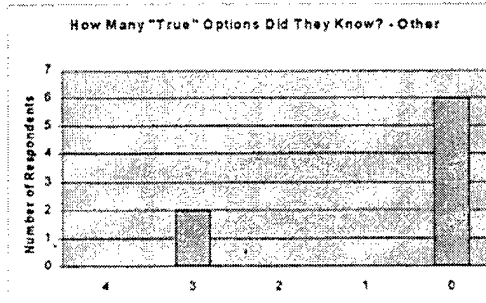
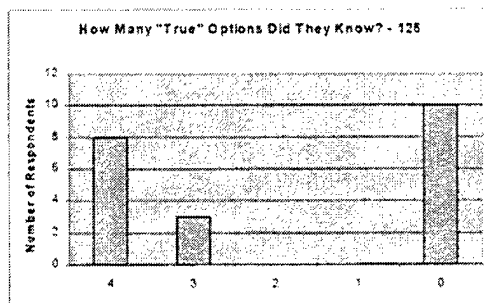
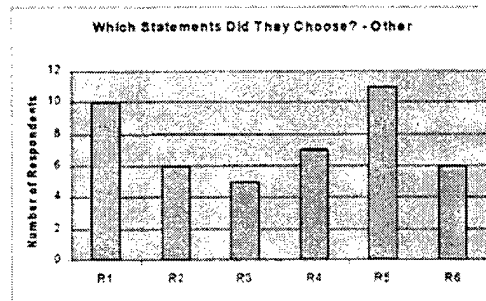
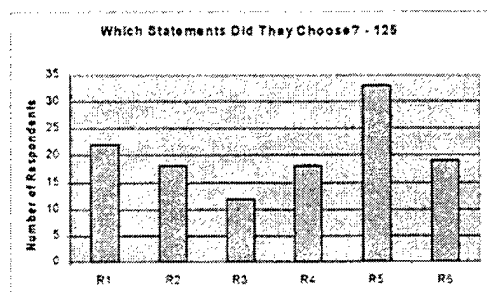
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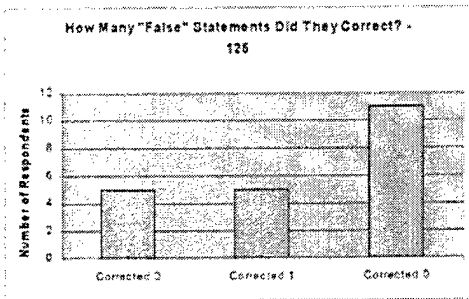
- 6 statements
  - 4 true: AREP status, SAV results, ORI
  - 2 false: Communications survey, ORI date
- Meetings held with all staff ~1 week prior to test
- Email follow-up



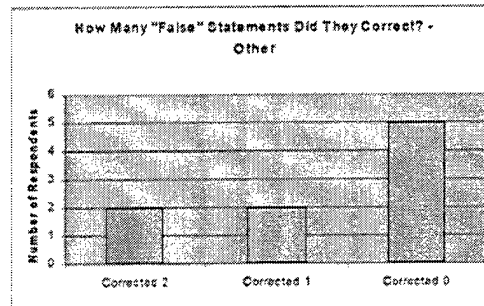
## Summary

- One interviewer collected data at work sites
- 48 respondents
- Analyzed by location
  - 37 in Building 125, 11 "Other"
- Results similar although
  - 125 people knew more
  - Others more accurate regarding location and communication method

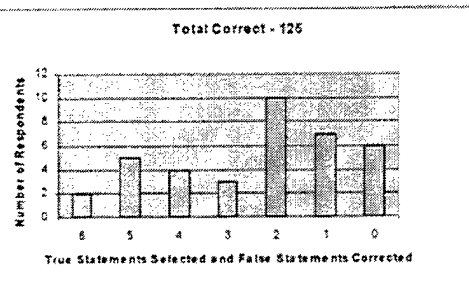




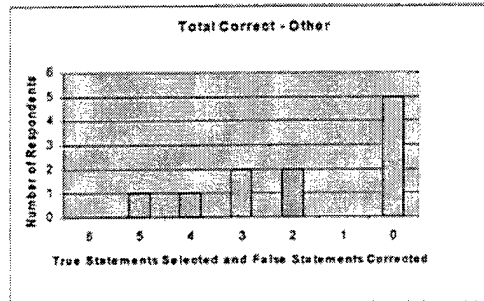
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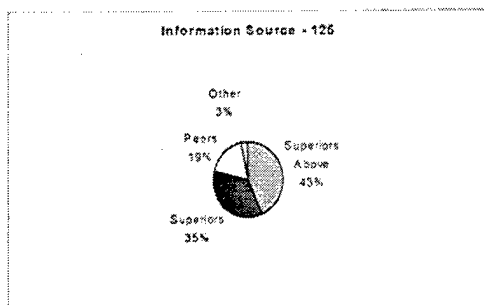
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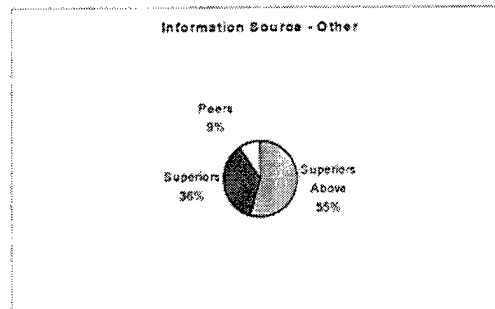
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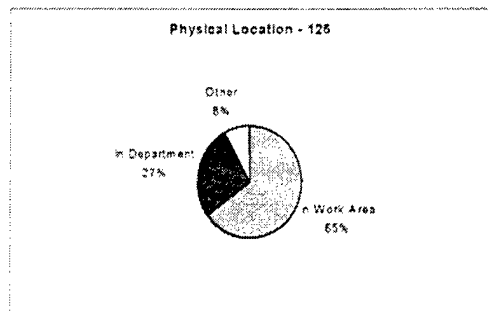


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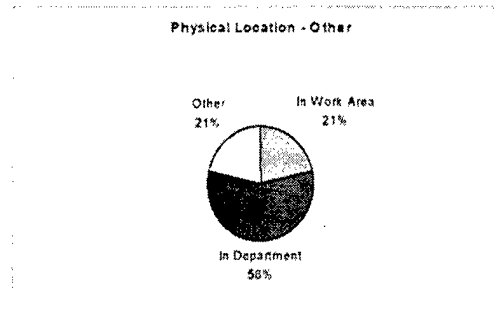


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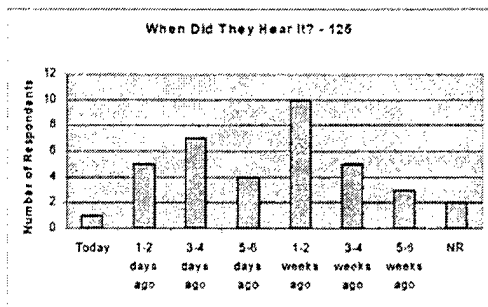




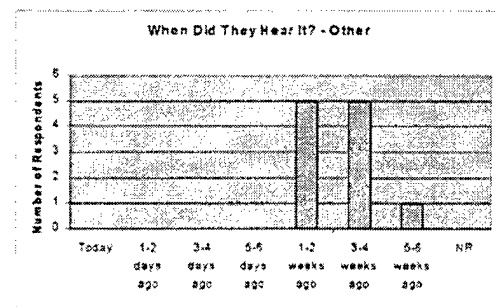
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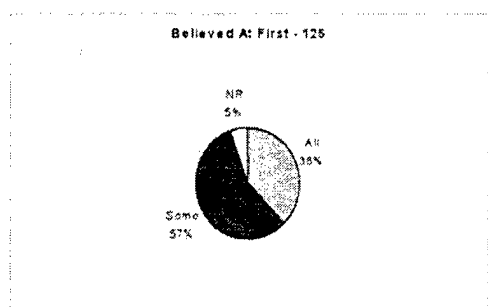
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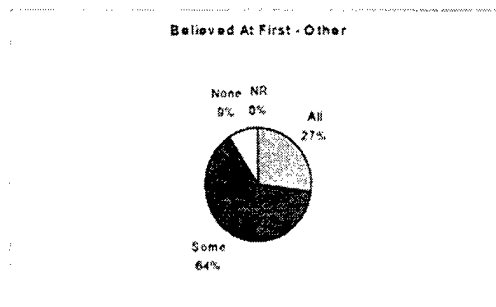
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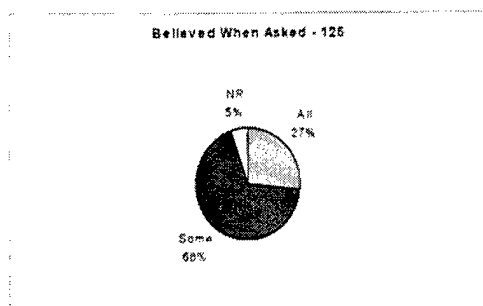
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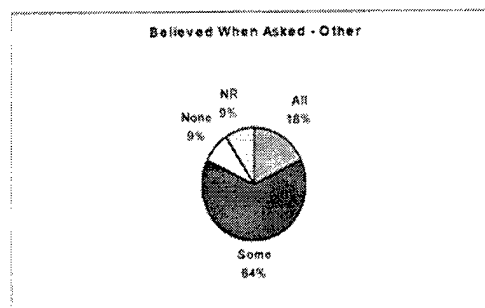
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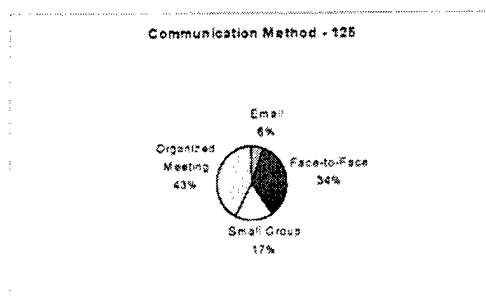
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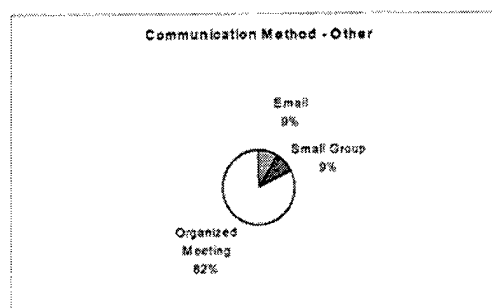
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## Recommendations

- More emphasis needs to be placed on the SAV results
  - Try to connect the results with specific impacts on their daily tasks
- Remote groups need
  - more contact,
  - more reinforcement
 to ensure they got and retain the message

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## Issues for Next Test

- False statements need to be more like "misconceptions" than typos
- ERIM will change administration practices to handle false statements, overlapping response options
- Need feedback on results provided

ERIM

1. Before receiving this questionnaire, did you know the information in the box below or any part of it?

<b>R1</b>	Industrial Prime Vendor (IPV) is a test of best commercial practices that GAO recommended several years ago.
<b>R2</b>	The IPV concept is still evolving and the scope of the work by the IPV contractor may still change.
<b>R3</b>	Originally, the IPV contractor was to take over all of the cages, including Blue Straw and benchstock. Now IPV just includes benchstock provided by that particular contractor.
<b>R4</b>	There will be separate cages for other benchstock, HAZMAT, and Blue Straw type items.
<b>R5</b>	Under the proposed concept the mechanic will now have to go to two cages instead of one.

*Please check only one:*

☐ No, I did not know any of it.

☐ Yes, I knew all of it.

☐ Yes, I knew part of it. ————— If so, please list the numbers of the parts you knew.

2. If you had the information in the box but you heard it differently, please write the facts you heard below.

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*If your answer above was "Yes, I knew all of it," or "Yes, I knew part of it," please complete the questionnaire by providing the information requested below.*

*If your answer above was "No, I did not know any of it," you have completed the questionnaire. Please return the questionnaire to me. Thank you very much for your cooperation.*

3. From whom did you **first** receive the information in the box?

*Please check only one.*

☐ Superiors above your immediate superior? .1

☐ Immediate superiors? .2

☐ Peers (others at your job level)? .3

☐ Subordinates? .4

☐ None of the above. .5

4. Where were you when you **first** received the information in the box above?

*Please review all of the options and select the statement that best represents your location.*

*Please check only one.*

☐ I was working within my designated work area (at my desk, board, workstation, etc.) .1

☐ I was working within my department, but outside of my designated work area .2

☐ I was working outside of my department .3

☐ I was on break outside of my department, but still within the building (lunch, coffee break, etc.) .4

☐ I was out of the building and not working .5

**Please turn the page.**

5. How long ago did you first receive the information in the box?

*Check the approximate time.*

- |   |  |
|---|--|
| <input type="checkbox"/> Today -.1          | <input type="checkbox"/> 1 - 2 weeks ago -.5 |
| <input type="checkbox"/> 1 - 2 days ago -.2 | <input type="checkbox"/> 3 - 4 weeks ago -.6 |
| <input type="checkbox"/> 3 - 4 days ago -.3 | <input type="checkbox"/> 5 - 6 weeks ago -.7 |
| <input type="checkbox"/> 5 - 6 days ago -.4 |  |

6. When you first received the information in the box, did you believe it?

*Please check only one.*

- ☐ I believed all of the information -.1  
☐ I believed some of the information -.2  
☐ I believed none of the information -.3

7. Since you first received the information in the box, has your opinion changed?

*Please check only one.*

- ☐ I now believe all of the information -.1  
☐ I now believe some of the information -.2  
☐ I now believe none of the information -.3

8. By what method did you first receive the information in the box above?

*Please review all the options and check the one that best represents how you received this information.*

*Please check only one.*

*Written or visual methods*

- ☐ Personal letter -.1  
☐ Letter, memo, or service program -.2  
☐ Electronic mail message -.3  
☐ Facsimile (FAX) -.4  
☐ Newsletter -.5  
☐ Magazine -.6  
☐ Videotape message -.7  
☐ Company film -.8  
☐ Public newspaper or magazine -.9  
☐ Records -.10  
☐ Our internal World Wide Web site -.11  
☐ An external World Wide Web site -.12

*Talking or sound methods*

- ☐ Face-to-face conversation -.13  
☐ Talking over the telephone -.14  
☐ Talking (and listening) in a small group of two or more -.15  
☐ Attending an organized meeting, briefing or conference -.16  
☐ Overhearing what someone else said -.17  
☐ Radio or television -.18

*Miscellaneous*

- ☐ I am the subject/source of the message -.19  
☐ Other, (Please explain.) -.20
- 
-

## WR-ALC Communication Effectiveness Survey #2

### Industrial Prime Vendor (IPV)

ERIM  
May 24, 1999

During the week of May 17, 1999, a series of meetings were held with the staff of the C-141 Weapon Systems Support Center (WSSC) at Warner-Robins Air Logistics Center (WR-ALC). Mr. Abe Banks, C-141 WSSC Chief, called these meetings to inform his staff about the status and plans for the Industrial Prime Vendor (IPV) contract.

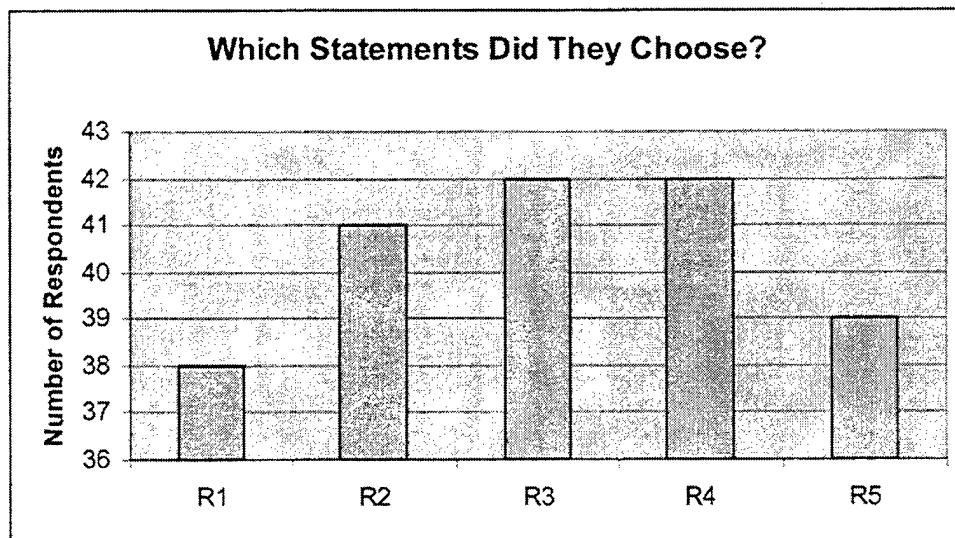
Most of these meetings were held in Building 125. (One meeting was conducted for a group in their outlying building.) After the meetings, the attendees were asked to complete an eight-question survey intended to measure of the effectiveness of the management communication about this topic.

### Results

These results are based on 62 respondents. Overall, this is a 62% response rate. This is excellent for a survey of this type.

The first question includes five statements about the IPV contract:

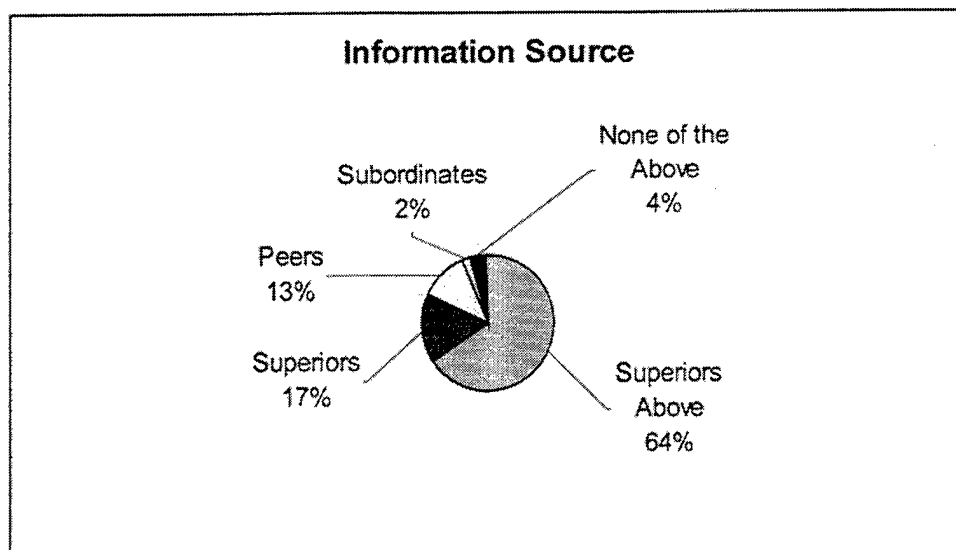
- R1. Industrial Prime Vendor (IPV) is a test of best commercial practices that GAO recommended several years ago.
- R2. The IPV concept is still evolving and the scope of the work by the IPV contractor may still change.
- R3. Originally, the IPV contractor was to take over all of the cages, including Blue Straw and benchstock. Now IPV just includes benchstock provided by that particular contractor.
- R4. There will be separate cages for other benchstock, HAZMAT, and Blue Straw type items.
- R5. Under the proposed concept, the mechanic will now have to go to two cages instead of one.



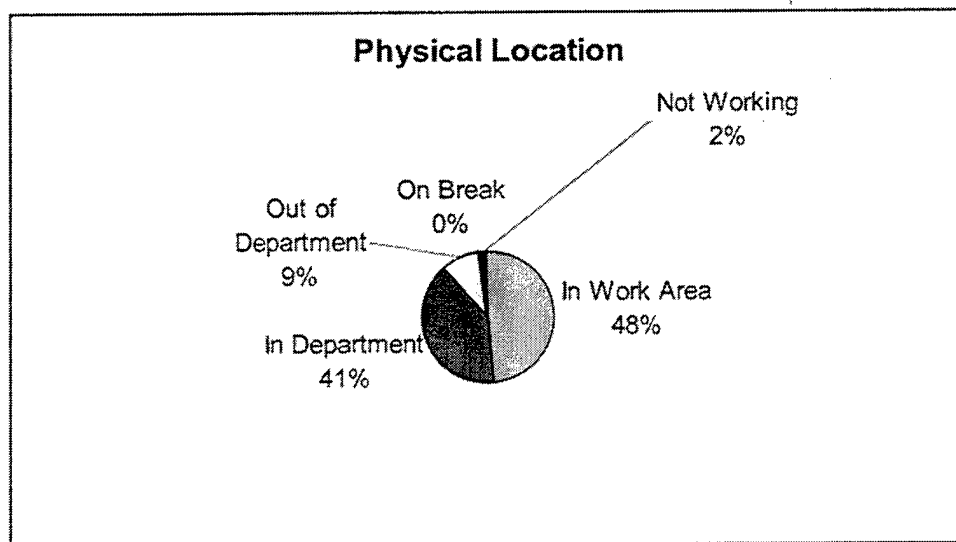
All of these statements are "facts" about the current state of the contract. Of the 62 respondents, 18 said they had heard none of them. (The interviewer was subjected to some comments and criticisms by potential respondents, who

led him to believe that some of these 18 intentionally chose that option as a protest.) As you can see from the chart above, the other 42 respondents "got the message" quite well.

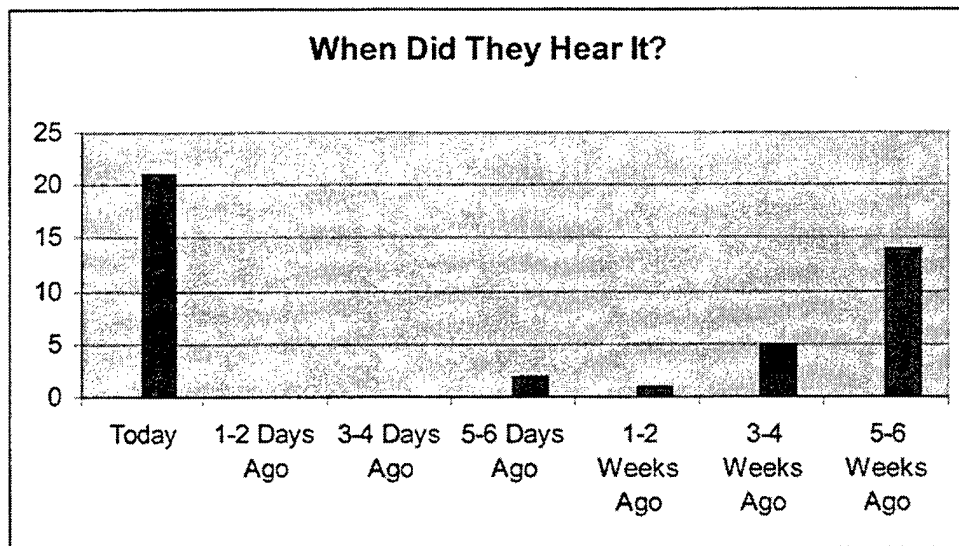
In this case, we know that the respondents had just received the briefing from the WSSC Chief that contained the information in question. Therefore, you would expect that since most do not work directly for Mr. Banks, they would have heard the message from a superior above their immediate superior. This is indeed the case.



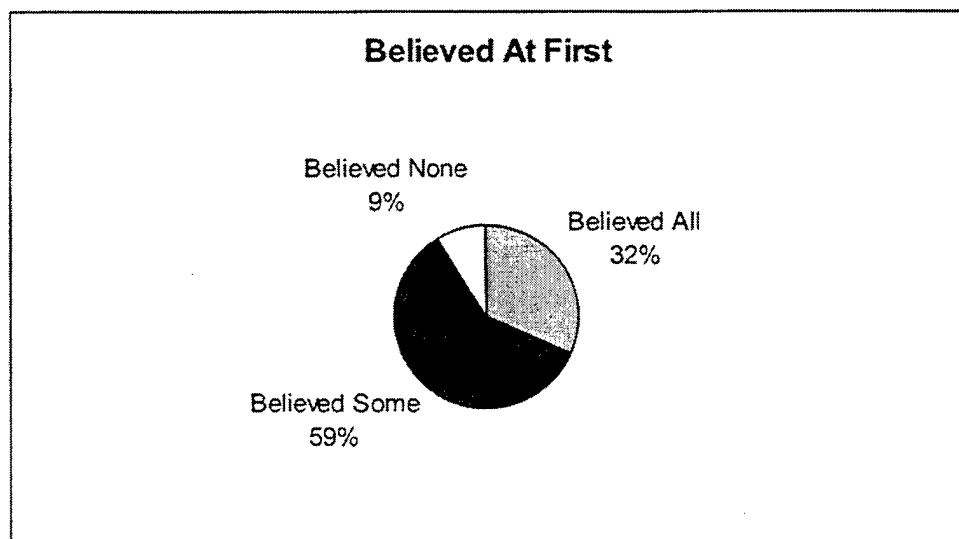
Most of the meetings were held in Building 125, the work area of most of the WSSC staff. Some came to the meeting from other buildings that were out of their department and one group attended a meeting held in their building.



The questionnaires were completed immediately after the meeting that included the IPV information. Thus, you would expect most people to say they received the information "Today". However, more than 10 people said they first heard the information 5-6 weeks ago. Since the IPV was discussed over a long period, this could be expected.

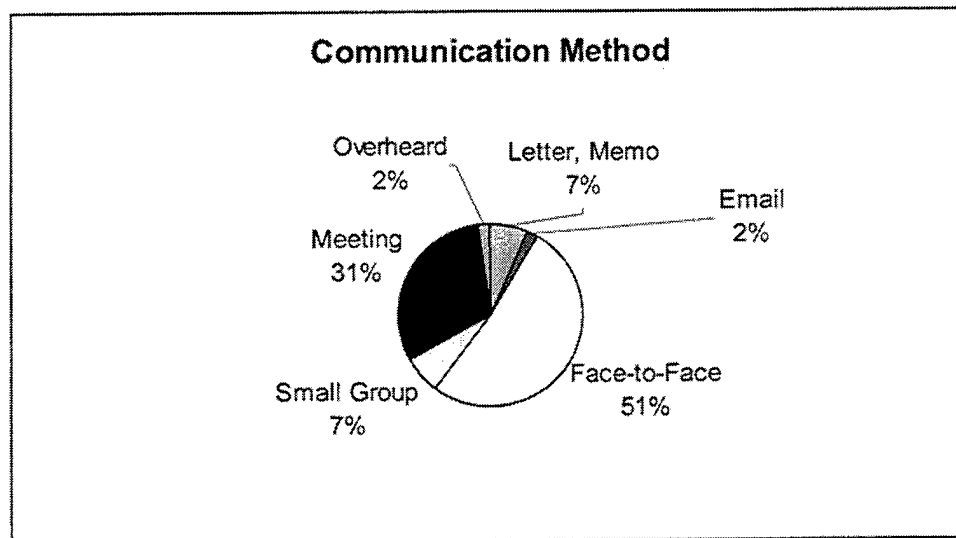
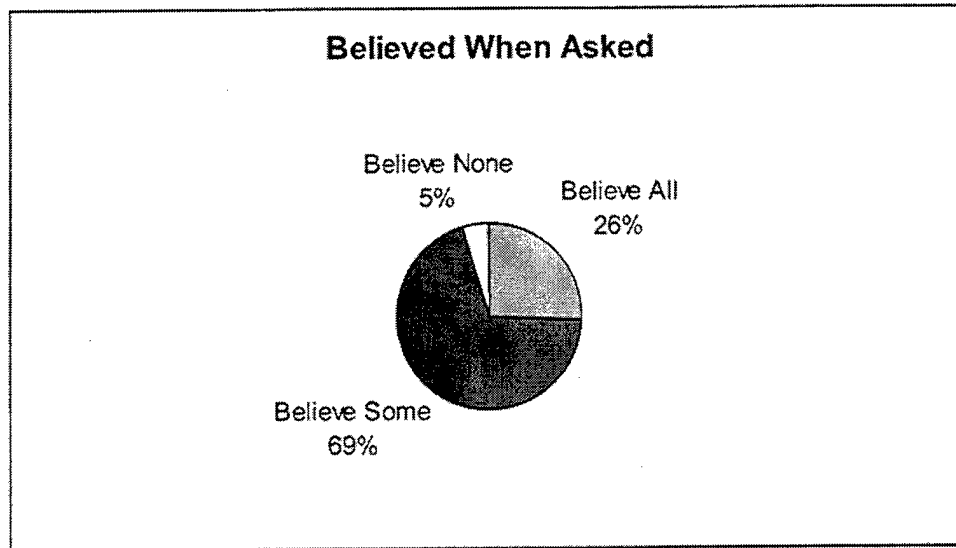


Since trust (or lack of it) was a big issue raised during our communications baselining, we also include two questions about believability, i.e., did you believe the information when you first heard it and do you believe it now? In this case, most of the respondents just heard the information. You would not expect there to be much difference in the answers to these two questions.



As you can see when comparing these two charts, that is the case.

Finally, most staff member should have heard the IPV information in an organized meeting. We know from past surveys, however, that respondents often choose the first option that resembles their situation. For example, these meetings were "face-to-face" and held in small groups, making those options possible. (We specifically changed the instructions to this question to focus on this problem, i.e., "Please review all the options and check the one that best represents how you received the information. Please check only one." Clearly, the new instructions were not enough.)



In this survey, there are two opportunities for respondents to provide input in their own words:

- Question 2 ("did you hear the information in question differently?")
- Question 8 ("By what other means did you first receive the information in question?").

For completeness, we include those comments modified only for spelling and to remove comments that could identify specific respondents.

## Comments in Question 2

In this question, respondents were allowed to comment on the "facts" listed in the first question.

*Only that we were moving to a new location. That we would share our resources with a contractor.*

*Depends on who you talked to, I heard different versions of the information I heard today.*



*Even with the lecturette by speaker- sound-bit lack uniqueness to make whatever subject was retainable.*

## **Comments in Question 8**

Respondents who answered this question "Other" listed these information sources.

*After overhearing IPV, I asked my husband who works in the area*

## **Discussion**

The circumstances of this data collection were less than ideal. Providing a questionnaire asking about a just completed briefing must have seemed like a quiz. It is not surprising that our researcher received some verbal abuse.

In spite of this issue, those 42 staff members who did respond seem to understand the status of IPV quite well. Since this is an on-going issue (note the large number of respondents who first heard about this 5-6 weeks before), it is important to keep the staff up-to-date with the latest changes. Sources of misinformation are readily available. Low staff morale (evident by the nature of the comments made to our researcher) makes it easier to leap upon new information not coming from formal channels as yet another strike against management.

1. Before receiving this questionnaire, did you know the information in the box below or any part of it?

- R1** The completion of the Forward Support Areas (FSAs) is another step toward fully implementing AREP.
- R2** The tail team concept will be used to determine seating arrangements.
- R3** Since supervisory and non-supervisory people will be sitting together, a lot of cooperation and consideration will be required.
- R4** We will continue to have formal tail team meetings.
- R5** Having the ALSs and production sit close together will improve communications between them.

*Please check only one:*

- ☐ No, I did not know any of it.
- ☐ Yes, I knew all of it.
- ☐ Yes, I knew part of it. —————> If so, please list the numbers of the parts you knew.

2. If you had the information in the box but you heard it differently, please write the facts you heard below.

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*If your answer above was "Yes, I knew all of it," or "Yes, I knew part of it," please complete the questionnaire by providing the information requested below.*

*If your answer above was "No, I did not know any of it," you have completed the questionnaire. Please return the questionnaire to me. Thank you very much for your cooperation.*

3. From whom did you **first** receive the information in the box?

*Please check only one.*

- ☐ Superiors above your immediate superior? <sub>-1</sub>
- ☐ Immediate superiors? <sub>-2</sub>
- ☐ Peers (others at your job level)? <sub>-3</sub>
- ☐ Subordinates? <sub>-4</sub>
- ☐ None of the above. <sub>-5</sub>

4. Where were you when you **first** received the information in the box above?

*Please review all of the options and select the statement that best represents your location.*

*Please check only one.*

- ☐ I was working within my designated work area (at my desk, board, workstation, etc.) <sub>-1</sub>
- ☐ I was working within my department, but outside of my designated work area <sub>-2</sub>
- ☐ I was working outside of my department <sub>-3</sub>
- ☐ I was on break outside of my department, but still within the building (lunch, coffee break, etc.) <sub>-4</sub>
- ☐ I was out of the building and not working <sub>-5</sub>

**Please turn the page.**

5. How long ago did you first receive the information in the box?

*Check the approximate time.*

- |  |   |
|--|---|
| <input type="checkbox"/> Today .1          | <input type="checkbox"/> 1 - 2 weeks ago .5 |
| <input type="checkbox"/> 1 - 2 days ago .2 | <input type="checkbox"/> 3 - 4 weeks ago .6 |
| <input type="checkbox"/> 3 - 4 days ago .3 | <input type="checkbox"/> 5 - 6 weeks ago .7 |
| <input type="checkbox"/> 5 - 6 days ago .4 |   |

6. When you first received the information in the box, did you believe it?

*Please check only one.*

- ☐ I believed all of the information .1  
☐ I believed some of the information .2  
☐ I believed none of the information .3

7. Since you first received the information in the box, has your opinion changed?

*Please check only one.*

- ☐ I now believe all of the information .1  
☐ I now believe some of the information .2  
☐ I now believe none of the information .3

8. By what method did you first receive the information in the box above?

*Please review all the options and check the one that best represents how you received this information.*

*Please check only one.*

*Written or visual methods*

- ☐ Personal letter .1  
☐ Letter, memo, or service program .2  
☐ Electronic mail message .3  
☐ Facsimile (FAX) .4  
☐ Newsletter .5  
☐ Magazine .6  
☐ Videotape message .7  
☐ Company film .8  
☐ Public newspaper or magazine .9  
☐ Records .10  
☐ Our internal World Wide Web site .11  
☐ An external World Wide Web site .12

*Talking or sound methods*

- ☐ Face-to-face conversation .13  
☐ Talking over the telephone .14  
☐ Talking (and listening) in a small group of two or more .15  
☐ Attending an organized meeting, briefing or conference .16  
☐ Overhearing what someone else said .17  
☐ Radio or television .18

*Miscellaneous*

- ☐ I am the subject/source of the message .19  
☐ Other, (Please explain.) .20

## WR-ALC Communication Effectiveness Survey #3

### Forward Support Areas (FSAs)

ERIM  
May 24, 1999

During the week of May 17, 1999, a series of meetings were held with the staff of the C-141 Weapon Systems Support Center (WSSC) at Warner-Robins Air Logistics Center (WR-ALC). Mr. Abe Banks, C-141 WSSC Chief, called these meetings to inform his staff about the status and plans for the Forward Support Areas (FSAs) to be implemented in support of the WSSCs activities.

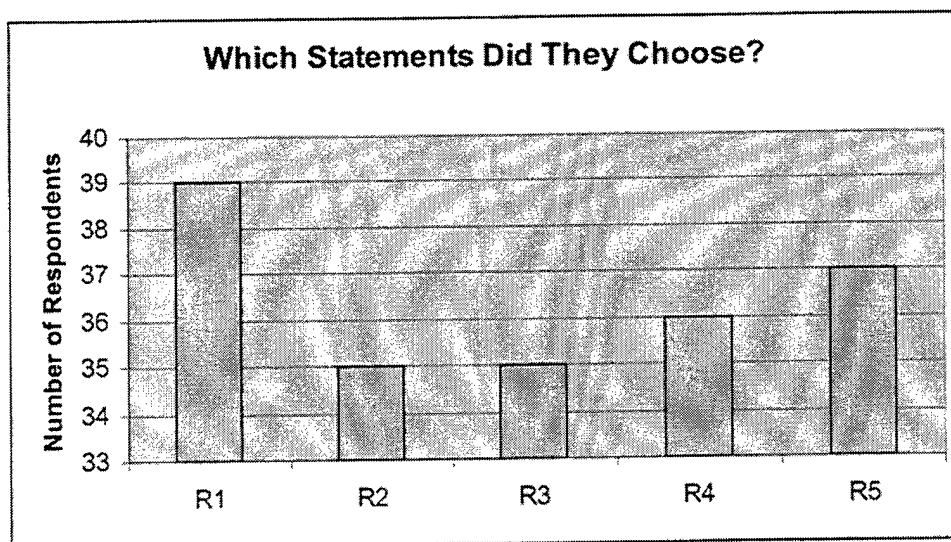
Most of these meetings were held in Building 125. (One meeting was conducted for a group in their outlying building.) After the meetings, the attendees were asked to complete an eight-question survey intended to measure of the effectiveness of the management communication about this topic.

### Results

These results are based on 63 respondents. Overall, this is a 63% response rate. This is excellent for a survey of this type.

The first question includes five statements about the Forward Support Areas:

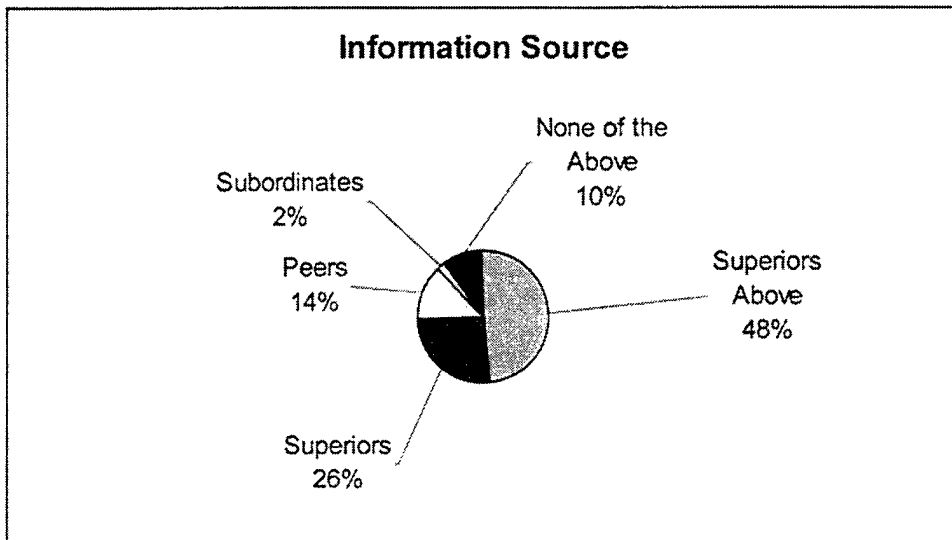
- R1. The completion of the Forward Support Areas (FSAs) is another step toward fully implementing AREP.
- R2. The tail team concept will be used to determine seating arrangements.
- R3. Since supervisory and non-supervisory people will be sitting together, a lot of cooperation and consideration will be required.
- R4. We will continue to have formal tail team meetings.
- R5. Having the ALSs and production sit close together will improve communications between them.



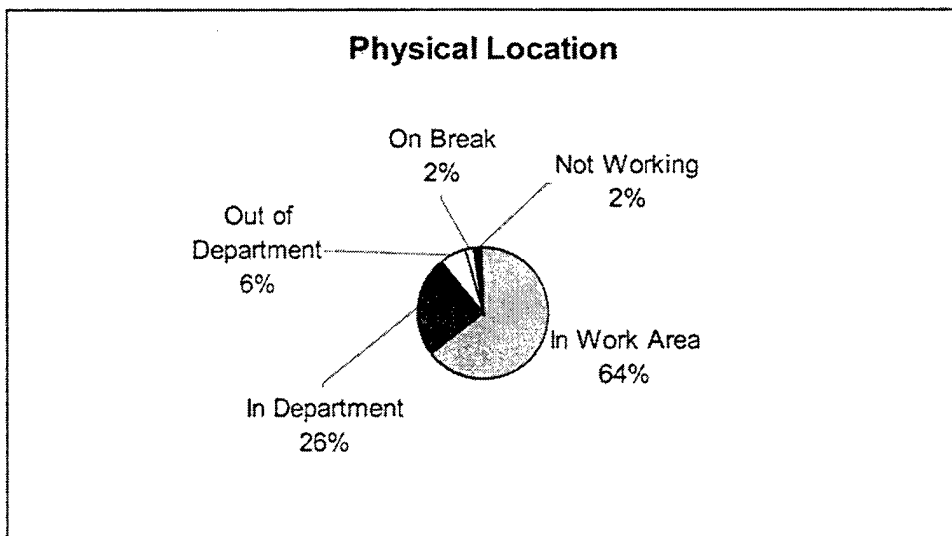
All of these statements are "facts" about the current state of the contract. Of the 63 respondents, 20 said they had heard none of them. (The interviewer was subjected to some comments and criticisms by potential respondents, who

led him to believe that some of these 20 intentionally chose that option as a protest.) As you can see from the chart above, the other 42 respondents "got the message" quite well.

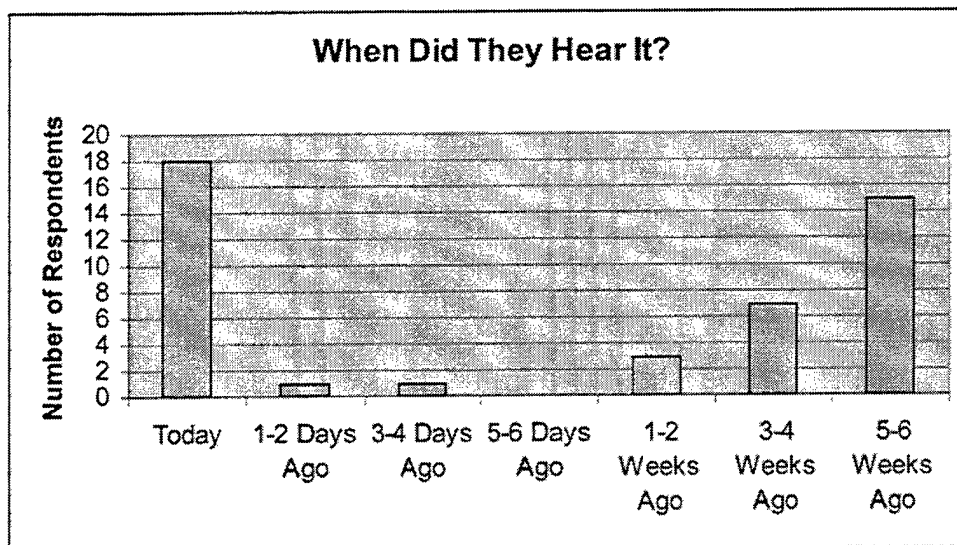
In this case, we know that the respondents had just received the briefing from the WSSC Chief that contained the information in question. Therefore, you would expect that since most do not work directly for Mr. Banks, they would have heard the message from a superior above their immediate superior. This is clearly the case, although many people also are hearing information about this topic "through the grapevine" from their peers and other sources not reflected in our question.



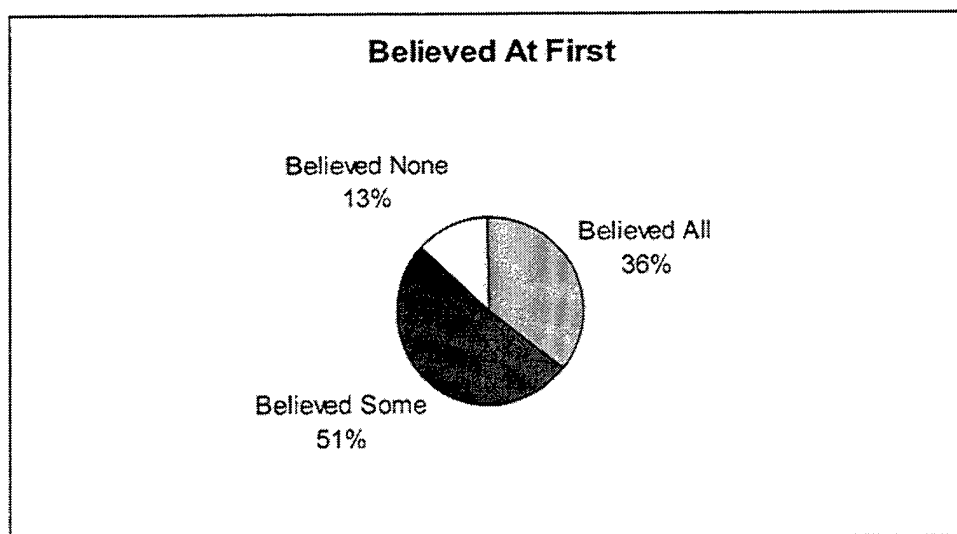
Most of the meetings were held in Building 125, the work area of most of the WSSC staff. Some came to the meeting from other buildings that were out of their department and one group attended a meeting held in their building.



The questionnaires were completed immediately after the meeting that included the FSA information. Thus, you would expect most people to say they received the information "Today". However, 15 people said they first heard the information 5-6 weeks ago. Since the FSAs were discussed over a long period, this could be expected.

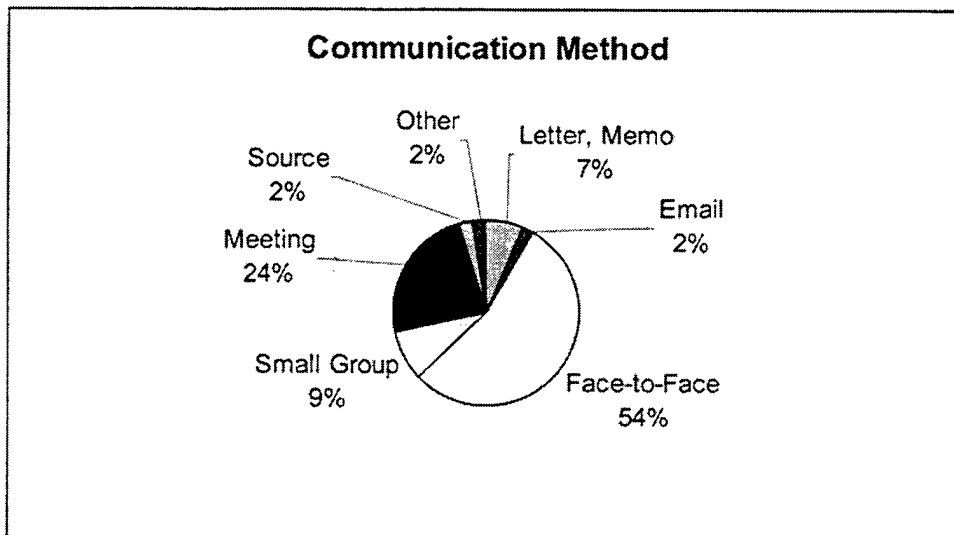
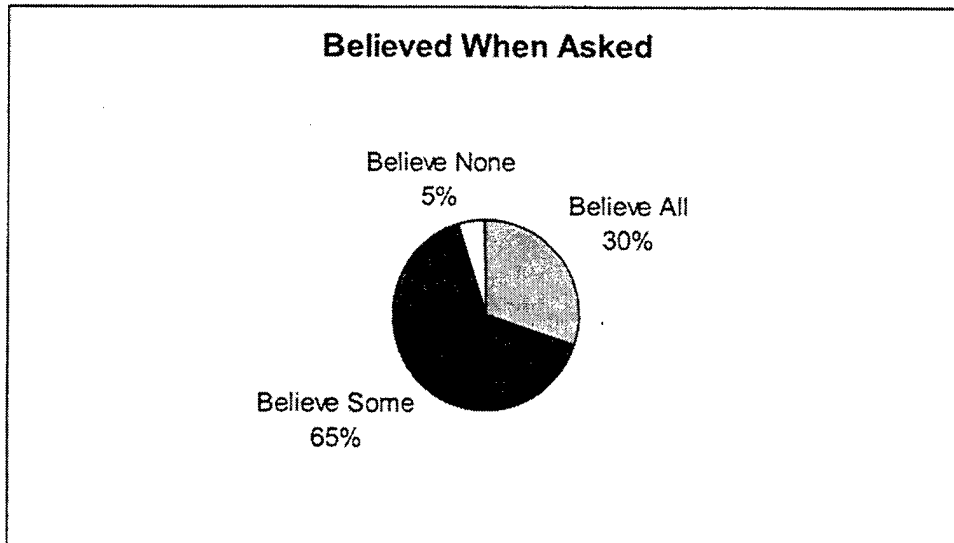


Since trust (or lack of it) was a big issue raised during our communications baselining, we also include two questions about believability, i.e., did you believe the information when you first heard it and do you believe it now? In this case, most of the respondents just heard the information. You would not expect there to be much difference in the answers to these two questions.



As you can see when comparing these two charts, that is not the case. Perhaps this briefing cleared up some of the misconceptions.

Finally, most staff member should have heard the FSA information in an organized meeting. We know from past surveys, however, that respondents often choose the first option that resembles their situation. For example, these meetings were "face-to-face" and held in small groups, making those options possible. (We specifically changed the instructions to this question to focus on this problem, i.e., "Please review all the options and check the one that best represents how you received the information. Please check only one." Clearly, the new instructions were not enough.)



In this survey, there are two opportunities for respondents to provide input in their own words:

- Question 2 (“did you hear the information in question differently?”)
- Question 8 (“By what other means did you first receive the information in question?”).

For completeness, we include those comments modified only for spelling and to remove comments that could identify specific respondents.

## Comments in Question 2

In this question, respondents were allowed to comment on the “facts” listed in the first question.

*Even with the lecturette by speaker- sound-bit- NO*

## **Comments in Question 8**

The one respondent who answered this question "Other" did not list their information source.

## **Discussion**

The circumstances of this data collection were less than ideal. Providing a questionnaire asking about a just completed briefing must have seemed like a quiz. It is not surprising that our researcher received some verbal abuse.

In spite of this issue, those 43 staff members who did respond seem to understand the status of the Forward Support Areas (FSAs) quite well. Since this is an on-going issue (note the large number of respondents who first heard about this 5-6 weeks before), it is important to keep the staff up-to-date with the latest changes. Sources of misinformation are readily available. Low staff morale (evident by the nature of the comments made to our researcher) makes it easier to leap upon new information not coming from formal channels as yet another strike against management.